Tehachapi Uplands Multiple Species Habitat Conservation Plan

PREPARED FOR

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DRAFT

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January 2012

Printed on 30% post-consumer recycled material.

ABSTRACT

The intent of this Tehachapi Uplands Multiple Species Habitat Conservation Plan (TU MSHCP) is to meet the requirements for a U.S. Fish and Wildlife Service (USFWS) Section 10(a)(1)(B) Incidental Take Permit (ITP) for 27 Covered Species, including the California condor (*Gymnogyps californianus*). The requested term of the ITP is 50 years. The Covered Lands occur in Kern County and would encompass 141,886 acres of the 270,365-acre Tejon Ranch. The TU MSHCP is designed primarily to preclude development and protect as open space in perpetuity 91% of the Covered Lands (including the whole of an identified Condor Study Area and 12,795 acres of Existing Conservation Easement Areas conveyed in March 2011 per the Ranchwide Agreement).

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DEFINITIONS

Commercial and Residential Development Activities. Planned future community development in the Covered Lands, sometimes referred to as "commercial and residential Covered Activities" and are Covered Activities further described in *Section 2*, *Plan Description and Activities Covered by Permit*.

Condor Critical Habitat: 605,190 acres in California; 127,774 acres within Tejon Ranch, 95,068 acres in Covered Lands. Critical habitat is defined in Section 3(5) of the Federal Endangered Species Act.

Condor HCP Alternative: Alternative considered by Tejon Ranchcorp (TRC), and depicted in *Figure 10-1*, *Proposed TU MSHCP & Condor Only HCP Alternative*, that would result in the issuance of an ITP covering only the California condor as originally proposed in 2004 and full implementation of the Ranchwide Agreement. This alternative would not include the comprehensive protective measures that would apply to all of the Covered Species in the Proposed MSHCP Alternative. Development and open space preservation would be consistent with those elements described in the Proposed TU MSHCP Alternative.

Condor Study Area: 37,100 acres in the Covered Lands, also referred to as the Tunis and Winters Ridge area, located in the Tehachapi Mountain Uplands.

Covered Activities: Certain activities (commercial and residential development, Development Activities, and Plan-Wide Activities) carried out or conducted by permittees within the Covered Lands, and described in *Section 2* of the TU MSHCP, that may result in the incidental take of wildlife Covered Species and effects to plant Covered Species for which an ITP is sought.

Covered Lands: The 141,886-acre area located in Tejon Ranch in which the Covered Activities would occur, depicted in *Figure 1-4*, *Relationship to Ranchwide Agreement*.

Covered Species: The 27 species (including the California condor) to be covered under an ITP issued by USFWS that will be conserved by the TU MSHCP when the TU MSHCP is implemented. The 27 Covered Species are listed in *Table 1-1*, *TU MSHCP Covered Species*, and include wildlife Covered Species and plant Covered Species. The California condor is described in *Section 4*, *California Condor*. The remaining 26 species are sometimes referred to as Other Covered Species and are described in *Section 5*, *Other Covered Species*; *Section 6*, *Potential Biological Impacts/Take Assessment*; and *Section 7*, *Conservation Plan for Other Covered Species*.

Development Envelope: Because the TU MSHCP allows flexibility in locating development activities in order to avoid resources, the exact location of the development footprint proposed under the TU MSHCP has not yet been determined. However, the TU MSHCP permits siting of the eventual development footprint within particular areas, and therefore a development envelope

has been defined as the larger area within which eventual development may be located. The TMV Planning Area development envelope includes a 7,860-acre area in the TMV Specific Plan Area (within which the 5,252 acres of development in the Kern County–approved TMV project may be sited), as well as the 170 acres of development in the West of Freeway area and a 506-acre development envelope area in Oso Canyon, within which development would be allowed under the Ranchwide Agreement (although no development is planned for this area). Combined with the 265 acres of development proposed for the 410-acre Lebec/Existing Headquarters Area, and 16 acres for operations and expansion of the Tejon-Castac Water District turnout in Bear Trap Canyon, the total size of the development envelope is 8,817 acres. The development disturbance footprint in this envelope is limited to 5,533 acres. Although the development envelope area exceeds the actual disturbance area proposed, the larger area of the development envelope is used to analyze biological impacts conservatively.

Disturbance Area: The term "disturbance area" refers to the actual disturbance footprint of proposed development under the TU MSHCP. Although the precise footprint of the development is not yet determined, because the TU MSHCP provides flexibility to avoid sensitive resources, the disturbance area would include disturbance of up to 5,252 acres in the TMV Planning Area; 265 acres in the Lebec/Existing Headquarters Area; and 16 acres to operate and/or expand the Tejon-Castac Water District facilities, for a total of 5,533 acres of disturbed areas. Note also that the TU MSHCP also envisions disturbance associated with Plan-Wide Activities (see below) that may include approximately 200 acres of disturbance.

Established Open Space: Established Open Space includes 93,522 acres within Covered Lands that will be conserved under the TU MSHCP in perpetuity, and will be recorded as development is phased in.

Existing Conservation Easement Areas: 12,795 acres of Covered Lands currently (as of March 2011) in conservation easement per Ranchwide Agreement.

Implementing Agreement: Agreement between the permittee and USFWS clarifying the duties, obligations, and procedures that apply under the TU MSHCP.

Interim Ranch-Wide Management Plan (Interim RWMP): The Interim RWMP was adopted in 2009 and serves as the basis for the preparation of the revised RWMP, which will govern management of activities in areas covered by the Ranchwide Agreement to be managed by the Tejon Ranch Conservancy (the Established Open Space and the Existing Conservation Easement Areas). The Conservancy is required to develop and adopt a revised RWMP on or before June 2013, and is now in the process of identifying baseline conditions and prescribing refined best management practices for conservation activities and ongoing ranch uses, such as soil and water conservation, erosion control, grazing management, pest management, nutrient management, wildlife management, public access program, water quality and habitat protection—all to

"preserve and enhance" the conservation values already present (see Ranchwide Agreement, Appendix A, Section 3.3).

Incidental Take Permit (ITP): Permit issued by USFWS authorizing take of Covered Species under Section 10 of the Federal Endangered Species Act.

Initial Mitigation Lands: The portion of the TU MSHCP mitigation lands that includes the Condor Study Area portion of the Established Open Space, depicted on *Figure 1-3, Proposed TU MSHCP Mitigation Lands*, and portions of the TMV Planning Area Open Space, on which conservation easements or similar legally binding restrictions are required to be recorded prior to commencement of grading of the TMV project, in accordance with the Implementing Agreement.

Kern County General Plan Buildout Alternative: Alternative considered by TRC and depicted in *Figure 10-2, Kern County General Plan Buildout Alternative*, that does not assume full implementation of the Ranchwide Agreement, and includes only the permanent protection of the already-recorded conservation easements on the Existing Conservation Easement Areas. This alternative would include approximately 34,130 acres of permanently preserved open space within the Covered Lands, including 12,795 acres of Existing Conservation Easement Areas and 21,335 acres of permanent open space required by the TMV Project Approvals. Development would result in approximately 7,238 dwelling units and 2,144,810 square feet of commercial development.

Lebec/Existing Headquarters Area: A 410-acre component of the TU MSHCP Covered Lands adjacent to the TMV Planning Area proposed to include 265 acres of disturbance and 145 acres of undeveloped area.

No Action Alternative: Alternative considered by TRC that assumes that the proposed issuance of an ITP would not occur, that the Ranchwide Agreement remains in effect, that development of the TMV project and other future commercial or residential development allowed within the Covered Lands will not occur, and that existing ranch uses will continue at current levels into the future.

Non-Permanent Effects: Non-permanent effects are those involving ground disturbance resulting in non-permanent loss of habitat, such as livestock grazing and range management activities; film production; maintenance and construction of underground utilities; recreation, with the exception of hunting; continued use of existing structures; farming and irrigation systems; and repair, maintenance, and use of roads. Non-permanent effects include those that are of short duration, such as construction and maintenance activities; of a cyclical nature, such as ranching activities and grazing, which may shift in location on a seasonal basis; or of longer duration, such as ground disturbance that is returned to pre-disturbance conditions (e.g., reclaimed by natural vegetation). These effects also include effects to non-habitat areas that do not cause habitat loss of any kind (e.g., repair of existing roads or uses of existing buildings).

Open Space: The term "open space" refers to the areas of the Covered Lands not subject to development under the TU MSHCP. The open space under the TU MSHCP consists of 129,318 acres (or 91%) of the Covered Lands, including 93,522 acres of Established Open Space; 23,001 acres of TMV Planning Area Open Space (collectively; 116,523 acres are TU MSHCP mitigation lands); and 12,795 acres of Existing Conservation Easement Areas.

Oso Canyon: Oso Canyon includes 1,666 acres located in the TMV Planning Area.

Other Covered Species: The term "other Covered Species" refers to the 26 species proposed for coverage under the ITP, exclusive of the California condor. See definition of "Covered Species."

Other Lands: "Other Lands" consist of 6,890 acres of the Covered Lands, including existing mining leases within the National Cement and La Liebre mine areas totaling about 2,636 acres, the Bakersfield National Veterans Cemetery occupying about 384 acres, and private inholdings within Covered Lands not owned by TRC ("Not a Part" areas) totaling 3,870 acres.

Permanent Effects: Permanent effects are those involving ground disturbance resulting in permanent loss of habitat, such as grading and/or land alteration for residential, commercial, or resort development or other land development activities. Permanent effects may result in direct effects, such as direct loss of habitat, as well as indirect effects associated with introduction of permanent new uses (e.g., land development and mineral extraction) in proximity to habitat and species.

Plan-Wide Activities. Plan-Wide Activities include activities in open space, such as ongoing ranch uses and certain development-related future uses (minor access roads/utilities), as well as mitigation, monitoring, and management activities that are Covered Activities further described in *Section 2.*

Primary Habitat: Primary habitat is the main use area for a particular species within which breeding may occur and that meets many or most of the species' life history requirements.

Proposed MSHCP Alternative: Alternative considered by TRC and depicted in *Figure 10-1* that assumes that an ITP will be issued for all Covered Species and Covered Activities on Covered Lands, and that the Ranchwide Agreement would be fully implemented. Development would occur only in the TMV Planning Area and the Lebec/Existing Headquarters Area, and the total amount of Covered Activity development would include 3,632 dwelling units and 1,804,390 square feet of commercial development.

Ranchwide Agreement: Tejon Ranch Conservation and Land Use Agreement (TRC et al. 2008). Private agreement between TRC and several resource organizations (defined below) that governs conservation and development on the ranch. Provides for permanent protection of up to 240,000 acres (90%) on ranch lands, including up to 106,317 acres (75%) in the Covered Lands. If development proceeds, additional portions of the Covered Lands in the developed areas would

also be subject to permanent protection. Also provides restrictions on Plan-Wide Activities so as to protect conservation values while continuing ranch operations.

Ranch-Wide Management Plan (RWMP): A plan governing the management of lands on the areas of the ranch to be managed by the Tejon Ranch Conservancy pursuant to the Ranchwide Agreement and that includes prescribed management standards to ensure that existing natural resource and conservation values of the ranch are protected while existing ranch uses remain ongoing. The RWMP identifies best management practices for existing ranch uses consistent with preserving and protecting conservation values as provided in the Ranchwide Agreement. Per the terms of the Ranch-Wide Agreement, an Interim RWMP was adopted by the Tejon Ranch Conservancy in 2009.

Remaining Mitigation Lands: The portion of the TU MSHCP mitigation lands upon which conservation easements are to be recorded after preservation of the initial mitigation lands. This area includes portions of the TMV Planning Area Open Space and areas of the Established Open Space outside of the Condor Study Area, as depicted on *Figures 1–3*, on which a conservation easement is required to be recorded prior to the end of the permit term, in accordance with the Implementing Agreement.

Resource Groups: Parties to the Ranchwide Agreement with TRC, consisting of the Sierra Club, National Audubon Society (doing business as Audubon California), Natural Resources Defense Council, Planning and Conservation League, and Endangered Habitats League.

Secondary Habitat: Secondary habitat is use area(s) associated with certain life history requirements of a particular species outside primary habitat, such as areas for foraging, roosting, aestivating, migrating, or wintering.

Suitable Habitat: Modeled habitat for the Covered Species as identified in *Table 1-1* of the TU MSHCP. The modeled suitable habitat represents locations within the Covered Lands with habitat characteristics that could support the life history requirements of the particular species. The identified species are not documented to occur within all the modeled suitable habitat within the Covered Lands; however, for purposes of analysis of the Covered Species, it is assumed that all modeled suitable habitat for a particular species could support the species. Input and criteria used to develop the suitable habitat models are presented in *Section 5*.

Tejon Mountain Village Environmental Impact Report (EIR): The Draft EIR and Final EIR approved on October 5, 2009, by the Kern County Board of Supervisors for the TMV project.

Tejon Ranch (or ranch): The 270,365-acre area located approximately 60 miles north of Los Angeles and 30 miles south of Bakersfield, California.

Tejon Ranch Company: A Delaware corporation, parent of the landowner and applicant, Tejon Ranchcorp.

Tejon Ranch Conservancy (or Conservancy): A nonprofit public benefit corporation, which was established in 2008 for the protection and stewardship of these open space lands and the development and implementation of resource management and enhancement programs at the ranch, per provisions of the Ranchwide Agreement.

Tejon Ranchcorp (TRC): Applicant for ITP; landowning subsidiary of Tejon Ranch Company.

Tejon Staff Biologist: A permanent staff member or contracted consultant retained by the permittee to carry out duties as described in *Sections 4* and *7*, and *Section 8*, *Changed Circumstances and Plan Implementation*, of the TU MSHCP, including the condor-specific measures described in *Section 4*; the project-specific duties related to development, described as "project biologist duties" in *Section 7* of the TU MSHCP; and the duties related to changed circumstances in *Section 8*. The Tejon Staff Biologist is responsible for activities, including but not limited to maintaining and updating baseline data, mapping, implementing condor-specific measures, monitoring, coordinating education, and enforcing and preparing the annual report as discussed in Section 4.4.3.5. This work may be completed by other qualified project biologists under contract to the Tejon Staff Biologist or proponents for Covered Activities, but all work shall be submitted to the Tejon Staff Biologist for inclusion in the annual report. The Tejon Staff Biologist shall be approved by USFWS. Other project biologists must have experience in biology, botany, or a similar field; must be familiar with the local vegetation communities; and must have verifiable experience performing similar types of environmental monitoring and reporting.

TMV Planning Area: The TMV Planning Area comprises 28,253 acres with three components: the TMV Specific Plan Area (26,417 acres), the West of Freeway area (170 acres), and the Oso Canyon area (1,666 acres). The TMV Planning Area incorporates 5,252 acres of development, including 170 acres of development in the West of Freeway area and a 5,082-acre disturbance area that would be sited flexibly within an 8,366-acre development envelope (7,860 acres in the TMV Specific Plan Area and 506 acres in Oso Canyon).

TMV Planning Area Open Space: TMV Planning Area Open Space includes 23,001 acres within the TMV Specific Plan Area and Oso Canyon portions of Covered Lands that will be conserved under the TU MSHCP.

TMV Project: Low-density development located in the TMV Specific Plan Area, approved by the Kern County Board of Supervisors on October 5, 2009, that would include 3,450 residences, up to 160,000 square feet of commercial development, two golf courses, an equestrian center, up to 750 hotel rooms, and up to 350,000 square feet of support uses.

TMV Project Approvals: Refers to General Plan amendments, TMV Specific Plan county approval, Draft and Final EIR, EIR certification, Mitigation Monitoring and Reporting Program, and staff reports, all approved by the Kern County Board of Supervisors for the TMV project.

TMV Specific Plan Area: 26,417 acres of the TMV Planning Area located in the southwest portion of the Covered Lands. Includes the low-density TMV project.

TU MSHCP Mitigation Lands: 116,523 acres consisting of Established Open Space (93,522 acres) and 23,001 acres of TMV Planning Area Open Space.

West of Freeway: "West of Freeway" includes 170 acres west of Interstate 5, located in the TMV Planning Area.

Wetlands: The federal Clean Water Act defines wetlands as:

> Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.1 et seq.).

The U.S. Army Corps of Engineers' wetlands delineation manual (ACOE 1987) identifies the three requisite characteristics of a Section 404 jurisdictional wetland:

- Hydrophytic vegetation: more than 50% of dominant plants are adapted to anaerobic soil conditions
- Hydric soils: soils classified as hydric or that exhibit characteristics of a reducing soil environment
- Wetland hydrology: inundation or soil saturation during at least 5% of the growing season (in Southern California, this is equal to 18 days).

In general, all three parameters must be met by field indicators. Wetlands may be identified based on the presence of fewer than three parameters when one or more parameters is absent due to normal seasonal variation in environmental conditions ("Problem Areas"), or due to recent human activities ("Atypical Situations").

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ACRONYMS AND ABBREVIATIONS

ACOE	U.S. Army Corps of Engineers
amsl	above mean sea level
AOU	American Ornithologists' Union
BCC	U.S. Fish and Wildlife Service Bird of Conservation Concern
BLM	Bureau of Land Management
BMP	best management practice
BGEPA	Bald and Golden Eagle Protection Act
CC&Rs	Covenants, Conditions, and Restrictions
CDF	California Department of Forestry & Fire Protection Sensitive
CDFG	California Department of Fish and Game
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFO	Chief Financial Officer
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Clean Water Act
Conservancy	Tejon Ranch Conservancy
DDE	dichlorodiphenyldichloroethylene
DDT	dichloro-diphenyl-trichloroethane
DOE	Department of Energy
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FONSI	finding of no significant impact
FP	CDFG fully protected
FPP	Fire Protection Plan
FR	Federal Register
FS	U.S. Forest Service Sensitive
FWS	U.S. Fish and Wildlife Service
GIS	geographical information system
GPS	global positioning system
HCP	habitat conservation plan
HIS	habitat suitability index
HOA	homeowners association

I-5	Interstate 5
ITP	Incidental Take Permit
MBTA	Migratory Bird Treaty Act
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NRC	National Research Council
NWR	National Wildlife Refuge
PVC	polyvinyl chloride
RMP	Resource Management Plan
RWMP	Ranch-Wide Management Plan
RWQCB	Regional Water Quality Control Board
SCE	state candidate for listing as endangered
SCT	state candidate for listing as threatened
SE	state listed as endangered
SHPO	State Historic Preservation Office
SR	State Route
SSC	CDFG Species of Special Concern
ST	state listed as threatened
SWPPP	stormwater pollution prevention plan
TCWD	Tejon-Castac Water District
TMV	Tejon Mountain Village
TRC	Tejon Ranchcorp
TRCC	Tejon Ranch Commerce Center
TU MSHCP	Tehachapi Uplands Multiple Species Habitat Conservation Plan
USDA	U.S. Department of Agriculture
USFS	U.S. Department of Agriculture, Forest Service
USGS	U.S. Geological Survey
VA	Veterans Administration
WL	CDFG Watch List

1. INTRODUCTION AND BACKGROUND

1.1 OVERVIEW AND BACKGROUND

1.1.1 SUMMARY

Tejon Ranchcorp (TRC), the landowning subsidiary of Tejon Ranch Company, has applied to the U.S. Fish and Wildlife Service (USFWS) for a permit pursuant to Section 10(a)(1)(B) of the Federal Endangered Species Act (FESA) of 1973 (16 U.S.C. §§ 1531–1544, 87 Stat. 884), as amended, for incidental take of the Covered Species (defined in Section 1.4, Species to be Covered By Permit). To meet the requirements for a Section 10(a)(1)(B) incidental take permit (ITP), TRC has developed the Tehachapi Uplands Multiple Species Habitat Conservation Plan (TU MSHCP). The requested term of the ITP is 50 years. USFWS has provided TRC with technical assistance during the preparation of this TU MSHCP. USFWS will formally review the TU MSHCP as part of its permit decision under FESA.

TRC's purpose in proposing the TU MSHCP is to support, through development of the TU MSHCP, its application for an ITP pursuant to FESA Section 10 in order to obtain incidental take coverage for 27 Covered Species for its proposed development on approximately 5,533 acres in two development areas (including the TMV Project, a mountain residential community, which has received land use approval by Kern County)—the Commercial and Residential Covered Activities—and certain ongoing ranch activities—the Plan-Wide Activities—in the Tehachapi Uplands portions of Tejon Ranch (referred to as "Tejon Ranch" or "ranch") (see Section 2.2, Activities Covered by Permit).

The Covered Lands occur in Kern County (see *Figure 1-1, Regional Context Map*) and would encompass 141,886 acres of the 270,365-acre ranch (see *Figure 1-2, TU MSHCP Covered Lands*).[1] As shown in *Figure 1-1*, Tejon Ranch and the Covered Lands are situated between an assortment of existing public lands to the west and a checkerboard of public lands to the east.

This TU MSHCP is the result of several years of planning and continued refinement of the appropriate land use and conservation approach for the Covered Lands and is designed primarily to preclude development and protect open space in perpetuity. The comprehensive conservation approach proposed by the TU MSHCP, which would conserve and manage as open space approximately 91% of Covered Lands and address the needs of Covered Species in the Tehachapi Uplands, is intended to benefit biological resources not only by conserving, protecting, and enhancing the Covered Species and their habitat within the Covered Lands, but also by contributing to a broad landscape linkage between public lands to the east and west. Specifically, the TU MSHCP includes measures to minimize and mitigate remaining impacts on

[1] The 141,886-acre number for the Covered Lands includes approximately 3,870 acres of land not owned by TRC (Not a Part). Because this land could ultimately be acquired by TRC, and used consistent with the remainder of the property, it is included as part of the Covered Lands.

the Covered Species, and measures that contribute to Covered Species conservation and recovery (see *Section 4, California Condor*, and *Section 7, Conservation Plan for Other Covered Species*). Among other things, this TU MSHCP requires preservation of the TU MSHCP Mitigation Lands: the Established Open Space, including the Condor Study Area, and the TMV Planning Area Open Space (see *Figure 1-3, Proposed TU MSHCP Mitigation Lands*). Dedicated conservation of those lands will be phased. Upon initiation of construction of the TMV Project, the TU MSHCP Mitigation Lands shall be permanently protected by phased recordation of conservation easements or equivalent legal restrictions over the Initial and Remaining TU MSHCP Mitigation Lands by the end of the permit term. In addition to the conservation of lands proposed in the TU MSHCP, TRC also proposes to incorporate a range of steps and the means to manage threats, conserve species, and enhance habitat through a variety of measures and funding to ensure implementation.

In addition, the TU MSHCP incorporates the protections provided by the Tejon Ranch Conservation and Land Use Agreement (Ranchwide Agreement; TRC et al. 2008, included as *Appendix A*). The Ranchwide Agreement requires a variety of development restrictions affecting the Covered Lands, as well as the ranch as a whole. The development and open space areas provided for under the Ranchwide Agreement are depicted in *Figure 1-4, Relationship to Ranchwide Agreement*.

The Ranchwide Agreement is an agreement between TRC and the Sierra Club; the National Audubon Society, doing business as Audubon California; the Natural Resources Defense Council; the Planning and Conservation League; the Endangered Habitats League (collectively known as the Resource Groups); and the Tejon Ranch Conservancy (Conservancy), that:

- Lays groundwork for conservation of 240,000 acres (90%) of Tejon Ranch, consisting of:
    - 178,000 acres conserved as designated open space areas (93,522 acres as Established Open Space and 21,350 acres as TMV Planning Area Open Space—as a part of the TMV Project on the Covered Lands); and
    - 62,000 additional acres available for conservation through an option to purchase; that option was exercised, and in March 2011, conservation easements were recorded over these option areas (including the 12,795-acre area on the Covered Lands formerly called "Potential Open Space" and now referred to as "Existing Conservation Easement Areas").
- Allows TRC to continue its historic ranch uses and also to pursue its development objectives for several development projects on the ranch, including, as relevant to the Covered Lands, development in the TMV Planning Area (as limited by the development envelope shown on Exhibit J-3 of the Ranchwide Agreement) and in the Lebec/Existing Headquarters Area, and allows TRC to proceed with entitlement and development of other

potential future development, including the proposed Centennial project and the conceptual Grapevine project without opposition from the Resource Groups (see *Figure 1-4*).

- Establishes and funds the independent Tejon Ranch Conservancy, a nonprofit public benefit corporation, which was established in 2008, for the protection and stewardship of these open space lands and the development and implementation of resource management and enhancement programs at the ranch. Long-term funding of the Conservancy is partially dependent on transfer fees from home sales related to the three potential development areas on the ranch: the TMV project on the Covered Lands and the Centennial and Grapevine projects elsewhere on the ranch.

- Commits to preserve and protect conservation values, including: the promotion and restoration of native biodiversity and ecosystem values; protection and enhancement of natural watershed functions and stream and aquatic habitat quality; maintenance of healthy, diverse native forests; protection of human life and property, public safety, and natural resource values from wildfire, recognizing that fire is a natural ecological process; protection and appropriate restoration and interpretation of significant historic and cultural resources; and the protection of scenic vistas and rare visual resources. This commitment is required to be memorialized in conservation easements that require existing ranch uses and other foreseeable development-related uses in open space (like emergency access roads/utilities) to be conducted so as to preserve and not impair these conservation values (see Ranchwide Agreement, Section 3.3).

- Requires the creation and implementation of a Ranchwide Management Plan ("RWMP") with prescribed management standards to ensure that existing natural resource and conservation values of the ranch, noted above, are protected while existing ranch uses remain ongoing. For example, the Interim RWMP, adopted in 2009 by the Conservancy (and included as *Appendix B* to this TU MSHCP), documents the existing "best management practices" (BMPs) followed by TRC when engaging in such ongoing ranch uses. The Conservancy is required to develop and adopt a revised RWMP on or before June 17, 2013, and is now in the process of identifying baseline conditions and prescribing refined BMPs for conservation activities and ongoing ranch uses, such as soil and water conservation, erosion control, grazing management, pest management, nutrient management, wildlife management, public access program, water quality, and habitat protection—all to "preserve and enhance" the conservation values already present (see Ranchwide Agreement, Section 3.3).

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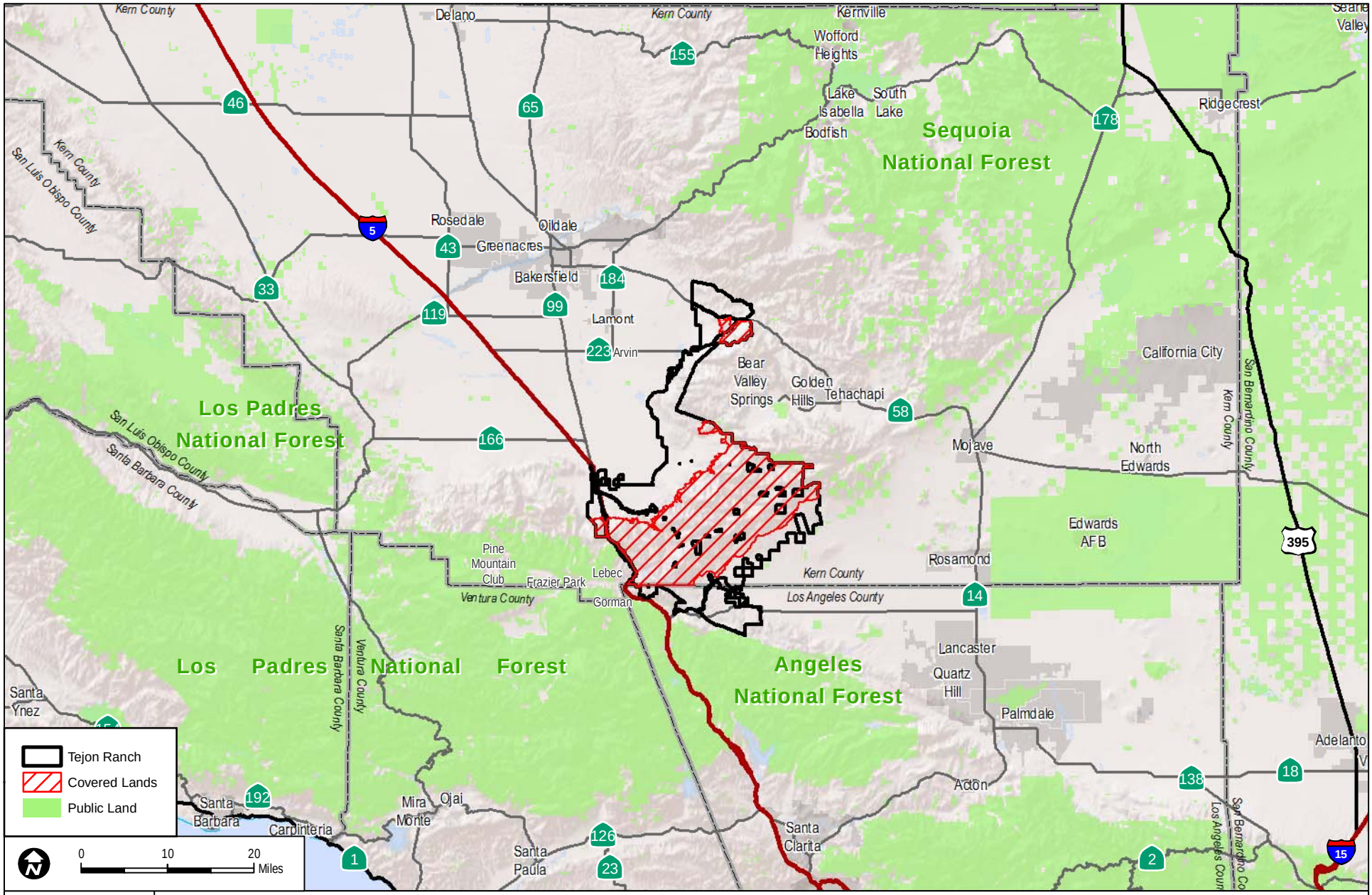

SOURCE: TRC 2007
California Resource Agency 2011

FIGURE 1-1

Regional Context Map

Draft Tehachapi Uplands MSHCP

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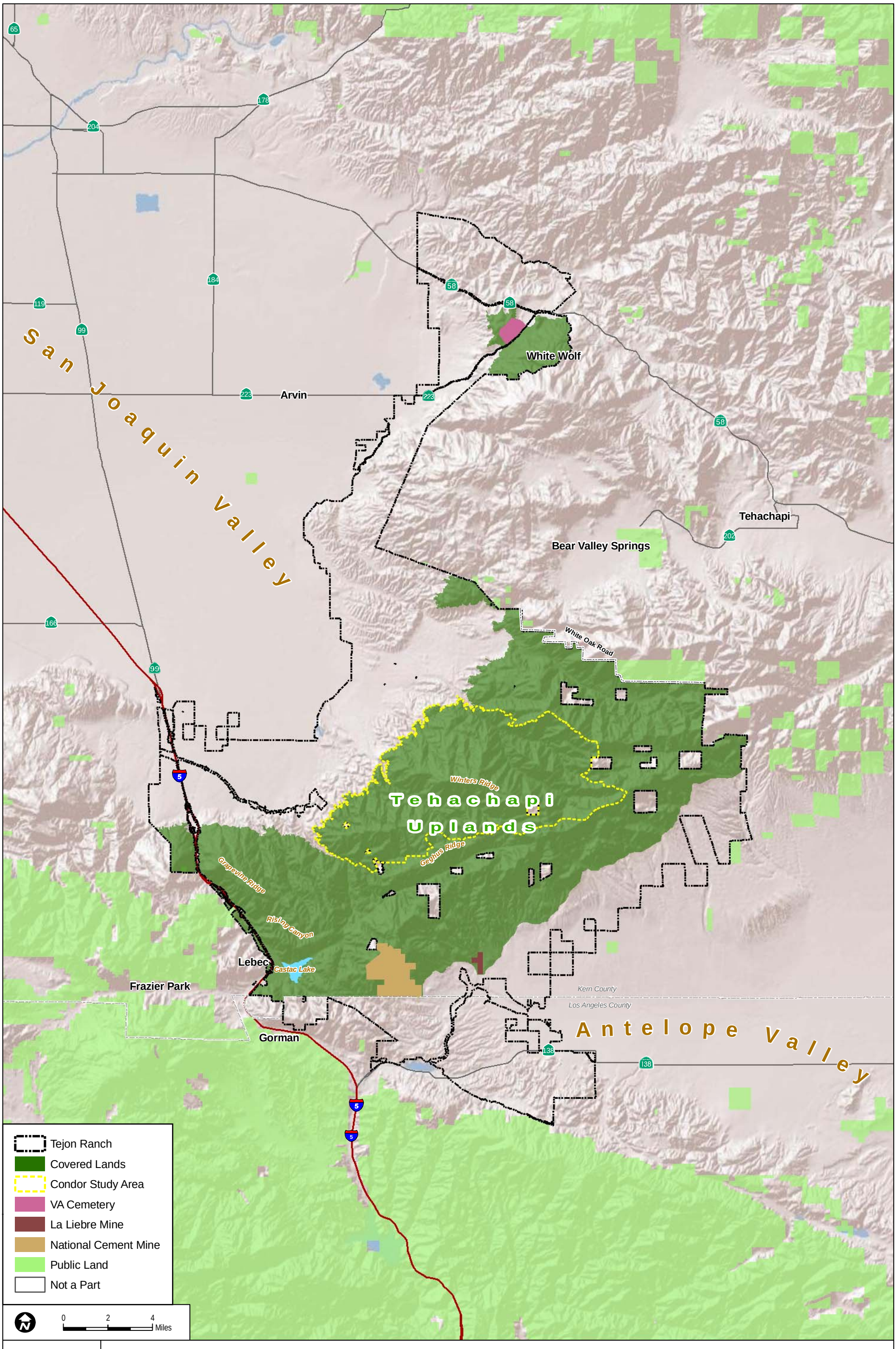

SOURCE: California Resource Agency 2011
TRC 2007

FIGURE 1-2

TU MSHCP Covered Lands

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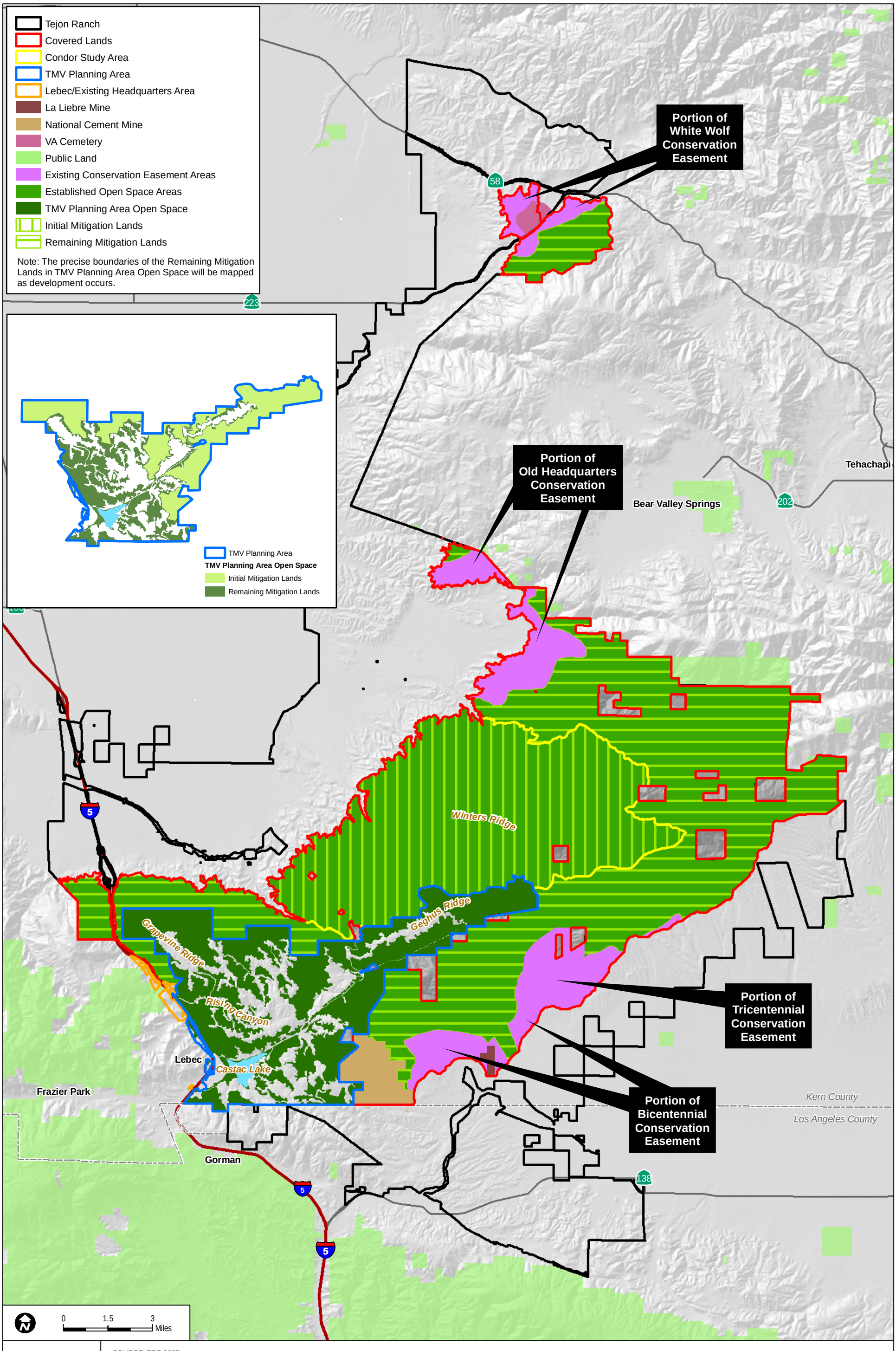

SOURCE: TRC 2007

FIGURE 1-3

Proposed TU MSHCP Mitigation Lands

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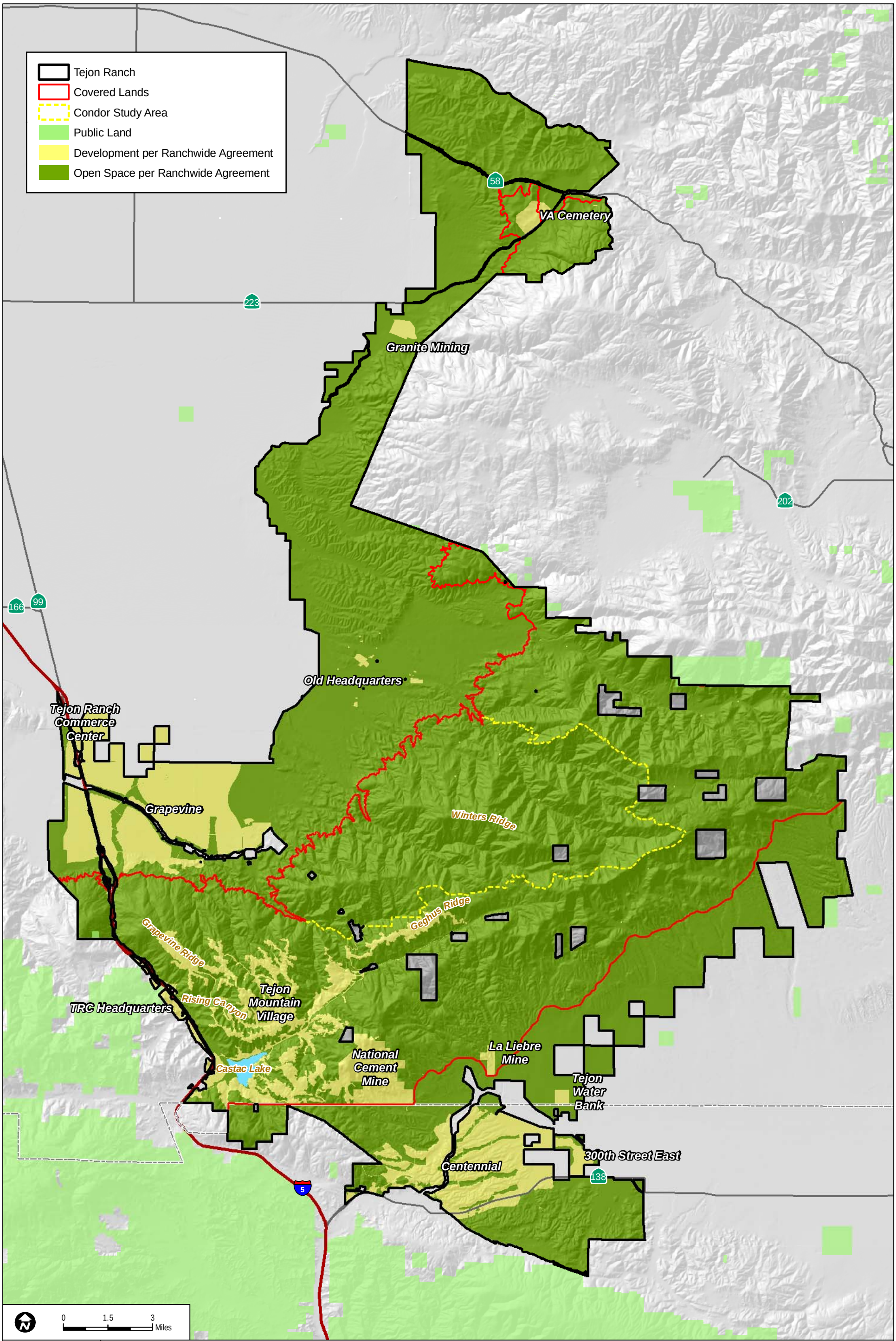

SOURCE: California Resource Agency 2011
TRC 2007

FIGURE 1-4

Relationship to Ranchwide Agreement

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The Ranchwide Agreement is a private agreement entered into by TRC, the Resource Groups, and the Conservancy to permanently preserve up to 240,000 acres of the ranch. Other than the option areas, over which conservation easements were recorded in March 2011, the remaining conservation easements will be recorded over a 20- to 30-year period only after one of the three developments (TMV Project or the Centennial or Grapevine projects) has been fully approved, including resolution of any lawsuits. If there are no final project approvals, then the agreement will expire after 99 years.

The 141,886-acre Covered Lands are entirely within the Tejon Ranch area covered by the Ranchwide Agreement, and the Covered Activities and conserved areas described in this TU MSHCP are consistent with those anticipated to be subject to a habitat conservation plan in the Ranchwide Agreement. As shown in *Figure 1-4*, lands to be conserved as part of this TU MSHCP will be adjacent to lands outside Covered Lands but within Tejon Ranch ownership to be protected as part of the Ranchwide Agreement, consistent with conservation biology principles calling for large, interconnected blocks of habitat that support the life history requirements of Covered Species.

1.1.2 PURPOSE AND NEED

In addition to the conservation goals of the TU MSHCP (e.g., to protect, conserve, and enhance the Covered Species and their habitat; provide a means to conserve the ecosystems on which the Covered Species depend; ensure the long-term survival and recovery of the Covered Species; and comply with FESA, the National Environmental Policy Act (NEPA), and other applicable Federal laws and regulations), TRC's purpose and need in proposing this TU MSHCP is in support of its application for an ITP to cover its ongoing ranching activities and the development of a viable mountain resort community and associated other development along Interstate 5 (I-5) in the Tehachapi Mountain Uplands, in close proximity to, and with convenient access from, the greater Bakersfield and Los Angeles areas.

To support its operations and development purposes, TRC seeks to: preserve the ranching use and natural heritage of the property; to maintain visual resources by minimizing visibility of the development from key public vantage points; to use existing property entrances to minimize impacts and maintain the historic character of the surrounding area; to maximize use of the existing property roadway network in order to minimize impacts associated with road construction; to provide a fire-safe community; to permanently fund community maintenance and other county obligations from revenues generated within the new community; and to create new jobs and provide new tax revenues for the local economy while minimizing demands on county services. To be viable, the community in the TMV Planning Area must maintain a character consistent with the mountain resort aesthetic of the site, it must offer amenities commensurate with its function, and it must be of sufficient size. Thus, TRC proposes to build a community of approximately 5,533 acres, incorporating approximately 3,624 residences,

464,920 square feet of commercial, and 350,000 square feet of integrated resort facilities, including hotels, golf courses, trails, and equestrian facilities, in order to: have sufficient space for infrastructure required by Kern County and infrastructure for a self-serving community; increase tax revenue for Kern County; preserve open space sufficient to preserve natural and cultural heritage and historical ranching operations; sell enough residences to generate intended conservation fees; and create a development of a scale large enough to attract residents and visitors. For the development along and adjacent to I-5, the development must generally support commercial uses. Thus, TRC proposes to build approximately 1,339,470 square feet of commercial and up to nine dwelling units in that area.

1.1.3 BACKGROUND AND HISTORY LEADING TO THE DEVELOPMENT OF THE TU MSHCP

TRC has a long history of assisting USFWS with efforts to save the California condor (*Gymnogyps californianus*) in the years prior to the species' removal from the wild in 1987. Before official protection efforts began, ranch managers provided warnings to hunters and other ranch visitors, and established rules and regulations for such persons admonishing them not to shoot large birds and not to engage in activities that put California condors at risk.

In cooperation with the National Audubon Society, TRC sponsored California condor and raptor censuses, allowing numerous volunteer observers at strategic locations on the ranch. Scientists studying the California condor used the ranch as their "laboratory," and the ranch was made available to USFWS and other persons interested in the species' recovery. Ranch staff assisted with efforts to locate and rescue injured or lost California condors. Some of the last California condors removed from the wild were taken at a capture site provided on the ranch.

In 1992, USFWS began to release condors back into the wild in California. In the summer of 1994, two California condors flew from their release site in Santa Barbara County and spent part of one day soaring over the western portion of the ranch. This movement prompted USFWS to meet with TRC representatives in September 1994 to discuss the status of the California condor recovery program and USFWS's desire to establish a collaborative relationship with TRC and obtain access to the ranch to monitor or capture California condors as needed.

In an October 31, 1994, letter to USFWS, TRC agreed to provide to USFWS access to ranch lands. In addition, as TRC was concerned about possible unknown future restrictions on uses of the ranch that could result from the presence of California condors, TRC requested that USFWS consider designation of California condors released in California and their offspring as an "experimental population" under Section 10(j) of FESA. Such a designation would permit promulgation of a rule under FESA Section 4(d) allowing for special management programs for re-introduced California condors and their offspring, including possibly less restrictive "take" prohibitions for activities on private lands that could include regulatory protections and relief for TRC. If, as desired by TRC, the FESA Section 10(j) rule determined the released birds and their

offspring to be a "non-essential experimental population," the rulemaking process would have required elimination of the existing critical habitat designations for the California condor on the ranch (and elsewhere on private lands in California) because FESA Section 10(j) prohibits designation of critical habitat for non-essential experimental populations. A similar rulemaking process under FESA Section 10(j) was completed for California condors released in Arizona.

In subsequent correspondence and meetings culminating in an October 9, 1996, letter to TRC, USFWS advised TRC that a FESA Section 10(j) designation was not required for the release of California condors in California and that USFWS did not support a Section 10(j) designation for released California condors because, in the agency's view, it would not further the conservation of the California condor. USFWS advised TRC that TRC had not identified any existing operations or specific plans for development or management that USFWS concluded would likely result in "take" of the California condor and, therefore, did not see a need for TRC to obtain an ITP. USFWS offered to continue to work with TRC to develop a cooperative agreement, safe harbor agreement, or other similar agreement that would formally document USFWS's conclusion that current ranch operations and identified future management/development scenarios for the ranch were not likely to result in "take" of California condors. TRC declined to pursue these options as either being too expensive for the degree of risk to the species posed by current or future activities on the ranch, or not providing sufficient protection from possible litigation by third parties against ranch activities alleging ESA violations.

On December 31, 1997, TRC filed suit under Section 11(g) of FESA, seeking to have USFWS reconsider its decision not to complete the FESA Section 10(j) process in California as it had done in Arizona. The suit also requested that USFWS reconsider whether the boundaries of the critical habitat area for the California condor, which had been established prior to the capture of all California condors for the breeding and release program, remained valid for newly released birds. Under supervision of a U.S. Magistrate, USFWS and TRC continued discussions and correspondence. The two parties ultimately agreed on a compromise that resulted in a stay of the litigation. Under this compromise, TRC agreed to pursue an ITP, supported by a habitat conservation plan prepared with the assistance of USFWS.

As TRC and USFWS worked on a single-species California condor habitat conservation plan and began to study potential conservation and development scenarios for the ranch (see Section 2.2, Activities Covered by Permit), TRC also considered other listed species, species listed under California law, and species that may be considered as future candidates for Federal or state listing, which were found on Covered Lands. After discussions with USFWS, TRC converted the single-species habitat conservation plan covering only the California condor to this TU MSHCP, which covers 26 additional species (see *Section 5, Other Covered Species*).

The first draft of the TU MSHCP was released to the public on March 26, 2008. Based on response to comments and further input from USFWS, the TU MSHCP was revised to be released for a

second public comment period. The Covered Lands boundaries, the Covered Species, and Covered Activities remain the same; however, revisions have been added to clarify the Covered Activities, to clarify the suitable habitat modeling efforts, and to fix discrepancies in the text. The analysis of the California condor has also been revised to incorporate the USFWS suitable foraging habitat model and food availability analysis. Finally, the alternatives have been revised.

1.2 PERMIT HOLDER AND PERMIT DURATION

The term of the proposed ITP is 50 years, which is the approximate amount of time needed to complete contemplated or foreseeable development within the Covered Lands and to provide conservation benefits to Covered Species. The permit holder would be TRC, as identified in the Implementing Agreement included in *Appendix C*.

For purposes of this TU MSHCP, "Covered Species" means the species listed in *Table 1-1, TU MSHCP Covered Species*. This TU MSHCP does not cover the San Joaquin Valley floor or Antelope Valley areas of the ranch.

1.3 PERMIT BOUNDARY AND COVERED LANDS

The ranch occupies approximately 426 square miles (270,365 acres) of land in Kern and Los Angeles Counties approximately 60 miles north of Los Angeles and 30 miles south of Bakersfield, California. Most of the irregularly shaped ranch is located in the Tehachapi Mountains. The ranch is roughly bounded by I-5 on the west and State Route (SR) 138 on the south. An arm of the property extends to just north of SR-58.

As depicted in *Figure 1-2*, the area proposed to be covered by this TU MSHCP (referred to as "Covered Lands") is located in the Tehachapi Uplands area of the ranch. Areas of the ranch on the San Joaquin Valley (northern) side of the Tehachapi Mountains and on the Antelope Valley (southern) side (including all ranch land in Los Angeles County) are excluded from the TU MSHCP (see *Figure 1-2*).

The Covered Lands include a combination of foothill grasslands and montane woodlands that make up the Tehachapi Uplands component of Tejon Ranch. The proposed Covered Lands include 141,866 acres and are generally bounded to the north by the San Joaquin Valley floor, generally above 2,000 feet above mean sea level (amsl), and to the south by the Antelope Valley floor, where the elevation ranges from about 3,200 feet amsl to about 4,700 feet amsl, following the Los Angeles County line, with an average elevation of 4,100 feet amsl. From east to west, the proposed Covered Lands include the most mountainous portion of Tejon Ranch, stretching from I-5 at Lebec to Tejon Ranch's eastern boundary at White Oak Road. Additionally, a small portion of the area on the northern tip of Tejon Ranch, known as White Wolf (above 2,000 feet amsl), is included. This area includes montane areas of known historic and current importance to

the California condor, as well as to other special-status species. The Covered Lands are depicted in *Figure 1-2*.

The primary criteria used in determining the boundary of the proposed Covered Lands included historic siting and radio telemetry data of California condor activity on Tejon Ranch, and elevation limits with respect to California condor habitat and activity on the ranch. The Los Angeles County boundary line was also taken into consideration.

Natural history information available for the California condor (described in Section 4.1, Natural History and Occurrence), supports the current configuration for proposed Covered Lands by satisfying specific habitat needs required for the species. The proposed Covered Lands include foothill grasslands, oak savannah, and open woodland habitat used by California condors for foraging and roosting. Moreover, ongoing ranching activities, with inevitable livestock mortalities, will continue to provide scavenging opportunity for the bird. The Covered Lands also support a variety of large mammals, such as deer, elk, and antelope, the carcasses of which also sustain California condor. Additionally, recreational hunting of wild pigs on Tejon Ranch often results in abandoned carcasses, which are fed upon by the species.

Furthermore, the topography of the proposed Covered Lands includes Purdy, Middle, Cordon, and Tunis and Winters Ridges, some of the higher known foraging zones used by California condors. Higher elevations throughout the proposed Covered Lands also support prevailing winds that aid California condor flight, foraging, and movement patterns.

With respect to other Covered Species, the boundary consists of the Tehachapi Uplands area. The Tehachapi Uplands are defined as the area of the ranch generally above 2,000 feet amsl on the north (San Joaquin Valley) side of the mountains and generally above 3,500 feet amsl on the south (Antelope Valley) side. Maximum elevation of the Tehachapi Uplands is approximately 7,000 feet. The Tehachapi Uplands area represents a distinct physiography with a distinct suite of species characteristic of the Tehachapi Uplands landscape. The complex topography of the Tehachapi Uplands includes numerous ridgelines and valleys, including major landforms such as Bear Trap Canyon, Tejon Canyon, Geghus Ridge, and Winters Ridge, as well as high peaks such as Grapevine Peak, the ridge south of Lopez Flats, Diorite, Liebre Twins, and Middle Ridge. These physiographic characteristics represent a logical boundary for the TU MSHCP.

1.4 SPECIES TO BE COVERED BY PERMIT

For purposes of this TU MSHCP, "Covered Species" means the 27 species listed in *Table 1-1*, including four Federally listed species: the California condor, least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). Initially, in addition to California condor, 48 special-status species known or with the potential to occur in the inventory area were evaluated for coverage in this TU MSHCP. From this list, a biology working group, comprised

of TRC staff, consultants, and USFWS biologists, identified the 27 species listed in *Table 1-1* for coverage on the basis of a variety of criteria, including current and potential sensitivity status, range and occurrence information, the potential to occur within the Covered Lands, taxonomy, seasonality, and specific habitat or other life history requirements. The 22 species evaluated but not carried through for analysis are listed in *Table 1-2, Species Evaluated but Not Proposed for Coverage Under the TU MSHCP*.

Table 1-1. TU MSHCP Covered Species

Taxon	Common Name	Scientific Name	Federal Status	State Status	CRPR List
Bird	California condor	*Gymnogyps californianus*	FE	SE, FP	—
Amphibian	Tehachapi slender salamander	*Batrachoseps stebbinsi*	None	ST	—
Amphibian	Western spadefoot	*Spea [Scaphiopus] hammondii*	None	SSC	—
Amphibian	Yellow-blotched salamander	*Ensatina eschscholtzii croceater*	None	SSC	—
Bird	American peregrine falcon	*Falco peregrinus anatum*	None	SE, FP	—
Bird	Bald eagle	*Haliaeetus leucocephalus*	None	SE, FP	—
Bird	Burrowing owl	*Athene cunicularia*	None	SSC	—
Bird	Golden eagle	*Aquila chrysaetos*	None	SSC, FP	—
Bird	Least Bell's vireo	*Vireo bellii pusillus*	FE	SE	—
Bird	Little willow flycatcher	*Empidonax traillii brewsteri*	None	SE	—
Bird	Purple martin	*Progne subis*	None	SSC	—
Bird	Southwestern willow flycatcher	*Empidonax traillii extimus*	FE	SE	—
Bird	Tricolored blackbird	*Agelaius tricolor*	None	SSC	—
Bird	Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FC	SE	—
Bird	White-tailed kite	*Elanus leucurus*	None	FP	—
Bird	Yellow warbler	*Dendroica petechia brewsteri*	None	SSC	—
Insect	Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	FT	None	—
Mammal	Ringtail	*Bassariscus astutus*	None	FP	—
Mammal	Tehachapi pocket mouse	*Perognathus alticolus inexpectatus*	None	SSC	—
Reptile	Coast horned lizard (*frontale* and *blainvillei* populations)	*Phrynosoma coronatum*	None	SSC	—
Reptile	Two-striped garter snake	*Thamnophis hammondii*	None	SSC	—
Plant	Fort Tejon woolly sunflower	*Eriophyllum lanatum* var. *hallii*	None	None	1B.1

Table 1-1 (Continued)

Taxon	Common Name	Scientific Name	Federal Status	State Status	CRPR List
Plant	Kusche's sandwort	*Arenaria macradenia* var. *kuschei*	None	None	CBR (considered but rejected)
Plant	Round-leaved filaree	*California macrophylla [Erodium macrophyllum]*	None	None	1B.1
Plant	Striped adobe lily	*Fritillaria striata*	None	ST	1B.1
Plant	Tehachapi buckwheat	*Eriogonum callistum*	None	None	1B.1
Plant	Tejon poppy	*Eschscholzia lemmonii ssp. kernensis*	None	None	1B.1

Note: FE = Federally Endangered; FT = Federally Threatened; FC = Federal Candidate; SE = State Endangered; ST = State Threatened; SSC = Species of Special Concern; FP = State Fully Protected; CRPR List 1B.1 = Rare, threatened, or endangered in California and elsewhere and seriously endangered in California (CDFG 2011a).

Table 1-2. Species Evaluated but Not Proposed for Coverage Under the TU MSHCP

Taxon	Common Name	Scientific Name	Federal Status	State Status	CRPR List
Bird	California spotted owl	*Strix occidentalis occidentalis*	None	SSC	—
Bird	Cooper's hawk	*Accipiter cooperii*	None	SSC (nesting)	—
Bird	Long-eared owl	*Asio otus*	None	SSC (nesting)	—
Bird	Northern goshawk	*Accipiter gentilis*	None	SSC (nesting)	—
Bird	Northern harrier	*Circus cyaneus*	None	SSC (nesting)	—
Bird	Osprey	*Pandion haliaetus*	None	SSC (nesting)	—
Bird	Prairie falcon	*Falco mexicanus*	None	SSC (nesting)	—
Bird	Southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	None	SSC	—
Bird	Yellow-breasted chat	*Icteria virens*	None	SSC (nesting)	—
Mammal	American badger	*Taxidea taxus*	None	SSC	—
Reptile	San Bernardino ringneck snake	*Diadophis punctatus modestus*	None	None	—
Reptile	Silvery legless lizard	*Anniella pulchra pulchra*	None	None	—
Reptile	Southwestern pond turtle	*Emys [Clemmys] marmorata pallida*	None	SSC	—
Plant	Aromatic canyon gooseberry	*Ribes menziesii* var. *ixoderme*	None	None	1B.2
Plant	Calico monkeyflower	*Mimulus pictus*	None	None	1B.2

Table 1-2 (Continued)

Taxon	Common Name	Scientific Name	Federal Status	State Status	CRPR List
Plant	Delicate bluecup	*Githopsis tenella*	None	None	1B.3
Plant	Flax-like monardella	*Monardella linoides* ssp. *oblonga*	None	None	1B.3
Plant	Golden violet	*Viola aurea*	None	None	2.2
Plant	Pale-yellow layia	*Layia heterotricha*	None	None	1B.1
Plant	Palmer's mariposa lily	*Calochortus palmeri var. palmeri*	None	None	1B.2
Plant	Piute Mountains Navarretia	*Navarretia setiloba*	None	None	1B.1
Plant	San Bernardino aster	*Symphyotrichum defoliatum [Aster bernardinus]*	None	None	1B.2

Note: FE = Federally Endangered; FT = Federally Threatened; FC = Federal Candidate; SE = State Endangered; ST = State Threatened; SSC = Species of Special Concern; FP = State Fully Protected; CRPR List 1B.1 = Rare, threatened, or endangered in California and elsewhere and seriously endangered in California (CDFG 2011a).

The species covered by this TU MSHCP are species of high conservation concern with the potential to be directly or indirectly impacted by the effects of the Covered Activities. All of the species are Federally and/or state-listed, state Fully Protected, or potential candidates for Federal listing. Birds that are not listed or state Fully Protected are California Species of Special Concern. Plants that are not state- or Federally listed are California Department of Fish and Game (CDFG) California Rare Plant Rank (CRPR) List 1B.1 species, with the exception of Kusche's sandwort (which was removed from the California Native Plant Society list in 2010, but may be an extreme local variant of the common *Eremogone macradenia* var. *arcuifolia*).

Excluded from the list of species covered by this TU MSHCP are species that have low potential to occur in the Covered Lands based on known ranges or on specific habitat or life history requirements. The list also excludes species that have unresolved taxonomic issues or life history traits that make coverage difficult. Finally, species that meet the criteria above for species covered by the TU MSHCP, but are not likely to be impacted by the Covered Activities, are also excluded from coverage.

Of the 27 Covered Species, six are plant species and the remaining 21 are wildlife species. Wildlife Covered Species include four Federally listed species, eight state-listed species, six fully protected species, and 10 species of special concern. Of the six plant species covered, one is a state-listed species and six are CRPR List 1B.1 species, which are considered "rare, threatened, or endangered in California and elsewhere and seriously endangered in California" (CNPS 2007).

The TU MSHCP includes avoidance, minimization, and mitigation measures for each of the Covered Species, whether or not it is currently Federally listed (see Section 7). TRC seeks incidental take coverage for the relevant unlisted Covered Species in the event that any of those species become listed during the proposed 50-year permit term. For plants, although FESA does

not prohibit take of listed plant species, TRC has included them in the TU MSHCP and requests assurances for them under USFWS's "No Surprises" assurances rule, discussed in Section 1.5.1, Federal Endangered Species Act, below. For a detailed description of the biology, status, and occurrence of each species, see Section 4 and Section 5. No other species have been proposed for inclusion in the TU MSHCP by TRC. Section 8.1.3, New Listings of Species/Designation of Critical Habitat Not Covered by the TU MSHCP, identifies measures to be undertaken by TRC if additional listed species are identified within the Covered Lands.

1.5 REGULATORY FRAMEWORK

1.5.1 FEDERAL ENDANGERED SPECIES ACT

Section 9 of FESA and Federal regulation pursuant to Section 4(d) of FESA prohibit the take of endangered and threatened species, respectively, without an exemption permit. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by USFWS to include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. "Harass" is defined by USFWS as intentional or negligent actions or omissions that create the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns that include, but are not limited to, breeding, feeding, or sheltering. "Incidental take" is defined as any take otherwise prohibited, if such take is incidental to, and not the purpose of, carrying out an otherwise lawful activity.

Pursuant to Section 11(a) and (b) of FESA, any person who knowingly violates Section 9 of FESA or any permit, certificate, or regulation related to Section 9, may be subject to civil and criminal penalties.

Individuals and state and local agencies proposing an action that is expected to result in the take of Federally listed species are encouraged to apply for an ITP under Section 10(a)(1)(B) of FESA to be in compliance with the law. Such permits are issued by USFWS when take is not the intention of and is incidental to otherwise legal activities. An application for an ITP must be accompanied by a habitat conservation plan, commonly referred to as an HCP (or MSHCP when multiple species are involved). The regulatory standard under Section 10(a)(1)(B) of FESA is that the effects of authorized incidental take must be minimized and mitigated to the maximum extent practicable, that the effects of the authorized incidental take also will not appreciably reduce the likelihood of the survival and recovery of the species in the wild, and that adequate funding for a plan must be ensured.

Section 7 of FESA requires Federal agencies to ensure that any actions authorized, funded, or carried out, including issuing permits, do not jeopardize the continued existence of listed species or destroy or adversely modify listed species' critical habitat. "Jeopardize the continued existence of …" means to engage in an action that reasonably would be expected, directly or

indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR 402.02). Issuance of an ITP under Section 10(a)(1)(B) of FESA by USFWS is a Federal action subject to Section 7 of FESA. As a Federal agency issuing a discretionary permit, USFWS is required to consult with itself (i.e., conduct an internal consultation).

The requirements of FESA Section 7 and Section 10 substantially overlap. Section 7 includes analyses of impacts to designated critical habitat, analyses of impacts on listed plant species, if any, and analyses of cumulative impacts on listed species. This TU MSHCP includes analyses of impacts to covered plant species (listed or not). With the exception of critical habitat for California condor, as discussed in *Section 4*, no critical habitat for Covered Species is designated within the Covered Lands. Cumulative effects are effects of future state, tribal, local, or private actions that are reasonably certain to occur in the action area, pursuant to Section 7(a)(2) of FESA. The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. The action area may or may not be solely contained within the TU MSHCP boundary. The analyses unique to Section 7 are included in this TU MSHCP to meet the requirements of Section 7 and to assist USFWS with its internal consultation.

In accordance with the "No Surprises" regulation (50 CFR 17.22(b)(5); 50 CFR 17.32(b)(5)), USFWS may provide assurances that it will not require the commitment of additional land, water, or financial compensation, or additional restrictions on the use of land, water, or other natural resources beyond the level otherwise agreed upon for the species covered by the TU MSHCP without the consent of the permittee as long as the TU MSHCP is being properly implemented and adequately covers the species included in the conservation plan.

Here, upon issuance of the ITP, TRC has requested incidental take authorization for wildlife Covered Species. TRC understands that plant Covered Species will be addressed by the ITP in recognition of the conservation measures incorporated into the TU MSHCP for such species and, as with wildlife Covered Species, will receive assurances under the "No Surprises Rule"; however, the ITP will not authorize take of plant species because take of plant species is not prohibited under FESA.

1.5.2 THE SECTION 10(A)(1)(B) PROCESS – HABITAT CONSERVATION PLAN REQUIREMENTS AND GUIDELINES

The Section 10(a)(1)(B) process for obtaining an ITP has three primary phases: (1) the HCP development phase, (2) the formal permit processing phase, and (3) the post-issuance phase.

During the HCP development phase, the project applicant prepares a plan that integrates the proposed activity with the protection of listed species. An HCP submitted in support of an ITP application must include the following information:

- Impacts likely to result from the proposed taking of the species for which permit coverage is requested
- Measures that will be implemented to monitor, minimize, and mitigate impacts; funding that will be made available to undertake such measures; and procedures to deal with unforeseen circumstances
- Alternative actions considered
- Additional measures USFWS may require as necessary or appropriate for purposes of the plan.

The HCP development phase concludes and the permit processing phase begins when a complete application package is submitted to the appropriate permit-issuing office. A complete application package consists of (1) an HCP; (2) an Implementing Agreement, if applicable; (3) a permit application; and (4) a $100 application fee from the applicant. USFWS must also publish a Notice of Availability of the HCP package in the Federal Register to allow for public comment. USFWS also prepares an Intra-agency Section 7 Biological Opinion and prepares a Set of Findings, which evaluates the Section 10(a)(1)(B) permit application in the context of permit issuance criteria (see below). A low-effect screening form and an Environmental Action Statement, Environmental Assessment, or Environmental Impact Statement are prepared for compliance with NEPA; the appropriate document must have gone out for a 30-day, 60-day, or 90-day public comment period. An Implementing Agreement is generally required for HCPs. A Section 10(a)(1)(B) ITP is granted upon determination by USFWS that all requirements for permit issuance have been met. For this TU MSHCP, an Environmental Impact Statement (EIS) and an Implementing Agreement are required. Statutory and regulatory criteria for issuance of the permit specify that:

- The taking will be incidental
- The impacts of incidental take will be minimized and mitigated to the maximum extent practicable
- Adequate funding for the HCP and procedures to handle unforeseen circumstances will be provided
- The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild
- The applicant will provide additional measures that USFWS requires as being necessary or appropriate
- USFWS has received assurances, as may be required, that the HCP will be implemented.

During the post-issuance phase, the permittee and other responsible entities implement the HCP, and USFWS monitors the permittee's compliance with the HCP as well as the long-term progress and success of the HCP. The public is notified of permit issuance by means of the Federal Register.

1.5.3 NATIONAL ENVIRONMENTAL POLICY ACT

The purpose of NEPA is twofold: to ensure that Federal agencies examine environmental impacts of their actions (in this case deciding whether to issue an ITP) and to utilize public participation. NEPA serves as an analytical tool on direct, indirect, and cumulative impacts of the proposed project alternatives to help USFWS decide whether to issue an ITP (Section 10(a)(1)(B) permit). NEPA analysis must be done by USFWS for each HCP as part of the ITP application process. For this TU MSHCP, USFWS determined that an EIS would be required.

1.5.4 NATIONAL HISTORIC PRESERVATION ACT

All Federal agencies are required to examine the cultural impacts of their actions (e.g., issuance of a permit). This may require consultation with the State Historic Preservation Office (SHPO) and appropriate American Indian tribes. All ITP applicants are requested to submit a Request for Cultural Resources Compliance form to USFWS. To complete compliance, the applicants may be required to contract for cultural resource surveys and possibly mitigation. For this TU MSHCP, cultural resource surveys were required for all development areas and the SHPO and tribal consultation was undertaken over the full Covered Lands.

1.5.5 FEDERAL AND STATE REGULATORY STRUCTURE FOR WETLAND PROTECTION

Within the Covered Lands, the wetlands/riparian areas are protected by Federal and state permitting processes that both (1) incorporate a policy of no net loss of wetlands and (2) emphasize avoidance of wetlands at the outset. Under Federal law, the Clean Water Act (CWA), 33 U.S.C. 1251 et seq., gives the U.S. Army Corps of Engineers (ACOE) the authority to regulate placement of fill into U.S. waters and wetlands.

In the state context, the Regional Water Quality Control Boards have jurisdiction over wetlands through CWA Section 401, as well as through the state Porter-Cologne Act and Basin Plans, and CDFG regulates impacts to waters of the state. Both ACOE and the Regional Boards require that impacts to wetlands/waters first be avoided, then minimized and mitigated. In issuing a permit to impact state waters, CDFG must include reasonable conditions necessary to protect the state fish, wildlife, and native plant resources.

1.5.6 OTHER INTRODUCTORY OR BACKGROUND TOPICS

Take is also prohibited without a permit under the Migratory Bird Treaty Act of 1918 (MBTA), 16 U.S.C. 703–712, and the Bald and Golden Eagle Protection Act (BGEPA), 16 U.S.C. 668–668d. "Take" under the MBTA is defined as to "pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured" (16 U.S.C. 703). BGEPA prohibits take of eagles. "Take" as defined under BGEPA includes: "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" (16 U.S.C 668c). To "disturb" a bald or golden eagle means "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best available scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding or sheltering behavior" (50 CFR 22.3).

HCPs may also constitute a permit for migratory birds and bald and golden eagles pursuant to the MBTA (USFWS 1996a, Appendix 5) and BGEPA (see 50 CFR 22.11).

The Covered Activities will comply with the MBTA throughout the Covered Lands by conducting pre-construction surveys for construction activities during the breeding season and ensuring that breeding activity is not interrupted and no active nest is removed; thus "take" under the MBTA is not anticipated. If needed, TRC anticipates that the Section 10(a) ITP would also constitute a Special Purpose Permit under 50 CFR 21.27 for Covered Species that are also protected by the MBTA, in the amount and/or number and subject to the terms and conditions specified in the ITP. Any such permitted take shall not be in violation of the MBTA.

For bald eagles and golden eagles, pursuant to 50 CFR 22.11(a), if needed, the Section 10(a) ITP could confer take authority under BGEPA because 50 CFR 22.11 extends BGEPA authorization to FESA permits that cover eagles as long as BGEPA permit issuance criteria is satisfied under the ITP. Therefore, this would eliminate the need for a separate permit under 50 CFR 21 for any take of bald or golden eagles otherwise prohibited by BGEPA or the MBTA. However, it is not anticipated that a BGEPA permit will be required here, where the TU MSHCP is designed to avoid "take" as defined under BGEPA (avoid all lethal take or injury, prevent disturbance or nest abandonment, and conserve sufficient modeled suitable habitat to support the population and not result in decreased productivity).

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2. PLAN DESCRIPTION AND ACTIVITIES COVERED BY PERMIT

2.1 PLAN DESCRIPTION

The proposed plan is a conservation plan, the Tehachapi Uplands Multiple Species Habitat Conservation Plan (TU MSHCP), encompassing 141,886 acres of Covered Lands on Tejon Ranch (referred to as "Tejon Ranch" or "ranch"), which would include conservation requirements, including protection, conservation, and management of 129,318 acres of open space, and would allow Covered Activities (consisting of commercial and residential Development Activities and ongoing ranch activities, called "Plan-Wide Activities") to proceed under an Incidental Take Permit (ITP) issued by the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 10 of the Federal Endangered Species Act (FESA).

Covered Activities, as described in Section 2.2, Activities Covered by Permit, of this TU MSHCP, would result in 5,533 acres (4% of the Covered Lands) of permanent ground disturbance, plus an additional 1,773 acres of vegetation clearing and thinning for fuel modification, associated with commercial and residential Development Activities; and 200 acres of ground disturbance associated with Plan-Wide Activities, which are further described below. The 1,773 acres of fuel modification are included within the total acreage of TMV Planning Area Open Space, as discussed below. The species goals and objectives and avoidance and minimization measures included in *Section 7, Conservation Plan for other Covered Species*, include methods to avoid and minimize impacts to Covered Species in both development and open space areas.

Proposed open space includes 93,522 acres of Established Open Space and 23,001 acres of TMV Planning Area Open Space. Together, these 116,523 acres constitute the TU MSHCP Mitigation Lands (see *Figure 1-3, Proposed TU MSHCP Mitigation Lands*). An additional 12,795 acres of open space (Existing Conservation Easement Areas also depicted on *Figure 1-3*), which were acquired pursuant to the Ranchwide Agreement (TRC et al. 2008, included as *Appendix A*), will be managed as permanent open space in accordance with the applicable conservation easements, and during the permit term, in accordance with the TU MSHCP. Together, these open space areas would occupy about 91% of Covered Lands. Plan-Wide Activities would continue within the open space areas, and would be subject to the restrictions in the Ranchwide Agreement, as well as the conservation, avoidance, and minimization measures described in *Section 4, California Condor*, and *Section 7* of this TU MSHCP.

Under the TU MSHCP, separate conservation easements covering the TU MSHCP Mitigation Lands will be granted to the Tejon Ranch Conservancy (Conservancy) or other qualified entity during the term of the ITP and will name USFWS as a third-party beneficiary with a right to enforce the terms of the easements. The conservation easements will include specific restrictions to protect condors and other Covered Species appropriate for the particular area and will

generally require that all activities in these areas be consistent with preservation of the conservation values of the lands.

The TU MSHCP builds off of the protections for the Covered Lands provided in the Ranchwide Agreement, and the TU MSHCP and Ranchwide Agreement are intended to complement and be consistent with each other. However, in the event of a conflict between the terms of the TU MSHCP or ITP and the Ranchwide Agreement, the terms of the TU MSHCP will override. Similarly, although the conservation easements developed under the Ranchwide Agreement and the conservation easements covering the TU MSHCP Mitigation Lands required under the TU MSHCP and ITP are expected to be generally consistent with each other, in the event of a conflict between the terms of a Ranchwide Agreement conservation easement covering the Mitigation Lands and a conservation easement covering the Mitigation Lands granted pursuant to the TU MSHCP, the terms of the TU MSHCP conservation easement will override.

The TU MSHCP includes open space (see *Figure 1-3*), development areas (see *Figure 2-1, TU MSHCP Development Areas*), and an additional 6,890 acres of Other Lands (5% of the Covered Lands), including existing mining leases within the National Cement and La Liebre mine areas, totaling about 2,636 acres; the Veterans Administration (VA) cemetery, occupying about 384 acres of Covered Lands; and private inholdings within Covered Lands not owned by Tejon Ranchcorp (TRC) ("Not a Part" areas), totaling 3,870 acres (see *Figure 1-2, TU MSHCP Covered Lands*). These have been included in the Covered Lands to provide a contiguous, integrated planning boundary. The existing mining leases and the cemetery are not Covered Activities under this TU MSHCP.

Table 2-1 provides a generalized land use summary of the uses provided for in the TU MSHCP.

Table 2-1. Generalized TU MSHCP Land Use Summary

Land Use		Acres[1] (%)
Open Space	Established Open Space	93,522 (66%)
	TMV Planning Area Open Space	23,001[1] (16%)
	Existing Conservation Easement Areas	12,795 (9%)
	Subtotal	*129,318 (91%)*
Commercial and Residential Development Area	TMV Planning Area	
	West of Freeway	170 (0.1%)
	TMV Specific Plan	5,082 (3.6%)[2]
	Oso Canyon	—[3]
	Lebec/Existing Headquarters Area	265 (0.2%)
	TCWD Parcel	16 (<0.1%)
	Subtotal	*5,533 (3.9%)[4]*

Table 2-1 (Cont.)

Land Use		Acres[1] (%)
Commercial and Residential Development Area – Not Developed	Lebec/Existing Headquarters Area	145 (0.1%)
Other Lands: Existing Non-Covered Uses	National Cement Mine	2,438 (1.7%)
	La Liebre Mine	198 (0.1%)
	VA Cemetery	384 (0.3%)
	Subtotal	*3,020 (2.2%)*
Other Lands: Not a Part		3,870 (2.7%)
	Total	**141,886 (100%)**

[1] The data used for GIS analysis in this document are collected from various sources with varying levels of precision and accuracy. Some of these data are generalized and were created for use in regional projects and analysis. More refined, project level data, are likely to be assembled as TU MSHCP easements/dedications, adaptive management and monitoring activities are undertaken and Covered Activities are designed and built. More specific mapping and quantitative analysis will likely be developed in conjunction with those activities. For purposes of review and analysis, given the regional scale and generalized precision and accuracy of data sources for the TU MSHCP, a margin of error of +/- 3% should be assumed for the GIS mapping and analysis in this document.

[2]TMV Planning Area Open Space includes 1,773 acres of vegetation clearing/thinning for fuel modification in accordance with the Fire Protection Plan developed for the TMV Project.

[2] The 5,082 acres of impact constitutes the TMV Project located in the TMV Specific Plan Area. Because the exact boundaries of the TMV Project are unknown, a larger development envelope (7,860 acres) is considered in this TU MSHCP consistent with the TMV Project approvals.

[3] The potential disturbance footprint for Oso Canyon is included within the 5,082 acres identified for the TMV Specific Plan Area. In order to conduct the analysis in this TU MSHCP, a 506-acre development envelope was identified consistent with the envelope allowed in the Ranchwide Agreement.

[4] Note that because the TU MSHCP incorporates the TMV Project, which allows for flexible siting of a permanent 5,082-acre disturbance area within a 7,860-acre development envelope, and because Oso Canyon development has not been proposed, but per the Ranchwide Agreement may occur within a 506-acre development envelope, the TU MSHCP analyzes a 8,817-acre development envelope, rather than the actual 5,533-acre disturbance area for the purposes of the biological analysis for incidental take of Covered Species. Thus, the TU MSHCP analysis overstates the impacts to Covered Species and assumes 100% impact of the 8,817-acre development envelope; however, it should be emphasized that this assumption is for analysis purposes only and, per the permit, no more than 5,533 acres will be impacted by development within the 8,817-acre development envelope.

2.2 ACTIVITIES COVERED BY PERMIT

Under the TU MSHCP, Plan-Wide Activities would continue, open space would be conserved, and future development of designated residential and commercial uses could occur. These uses are described below.

This TU MSHCP requests incidental take authorization only for the Covered Species as a result of the Covered Activities described in this section. Potential effects of any activities that are not Covered Activities on any special-status species would not be covered by the TU MSHCP. The effects of non–Covered Activities on such species would be addressed separately and applicable FESA compliance actions would be required.

2.2.1 PLAN-WIDE ACTIVITIES

Plan-Wide Activities are Covered Activities that have been occurring historically on the ranch and are planned to continue. Most of these activities would occur throughout the open space areas on Covered Lands. Under the TU MSHCP, Plan-Wide Activities could result in 200 acres of permanent ground disturbance within Covered Lands; the impact location is unknown, but disturbance will be in accordance with this TU MSHCP and consistent with the requirement to protect conservation values set forth in the Ranchwide Agreement. The 200 acres of permanent ground disturbance allocated to the Plan-Wide Activities described in this section would primarily be associated with construction of new roads, back-country cabins, and ancillary structures, if needed. The 200 acres of permanent ground disturbance does not include impacts from Plan-Wide Activities to disturbance areas or non-native vegetation. Additionally, ground disturbance may be offset by habitat restoration where Plan-Wide Activities result in replacement facilities.

Through this TU MSHCP and the Ranchwide Agreement, TRC has committed to certain restrictions to existing and foreseeable ranch uses. For example, the Ranchwide Agreement requires a commitment to preserve and not impair the conservation values in the open space areas to be managed by the Conservancy, which include species and habitat values.[1] This requirement to protect conservation values is to be implemented through a ranchwide management plan (RWMP) with prescribed management standards to ensure that existing natural resource and conservation values of the ranch are protected while ranch uses, including those described as the Plan-Wide Activities in the TU MSHCP, remain ongoing (see Ranchwide Agreement, Section 3.1). For example, the Interim RWMP documents the existing best management practices (BMPs) followed when engaging in ranch uses, including pre-construction surveys to be completed by a qualified biologist, along with species-specific protection measures, such as buffer zones and restrictions on construction during breeding seasons (see Interim RWMP, pp. 3.3-1, 3.3-11, 3.3-12). The TU MSHCP requires that after ITP approval and during the permit term, all future RWMPs (limited to those portions related to the Covered Lands), be reviewed and approved by USFWS. In addition, this TU MSHCP includes additional restrictions to the ranch uses as set forth in the descriptions below, as well as provided for in conservation measures set forth in *Sections 4* and *7* of this TU MSHCP and discussed briefly below. The Plan-Wide Activities under the TU MSHCP would include:

[1] Section 3.3 of the Ranchwide Agreement commits TRC to preserve and protect conservation values, including: the promotion and restoration of native biodiversity and ecosystem values; protection and enhancement of natural watershed functions and stream and aquatic habitat quality, maintenance of healthy, diverse native forests; protection of human life and property, public safety, and natural resource values from wildfire, recognizing that fire is a natural ecological process; protection and appropriate restoration and interpretation of significant historic and cultural resources; and the protection of scenic vistas and rare visual resources. The commitment is required to be memorialized in conservation easements to be conducted so as to preserve and not impair these conservation values.

- **Livestock Grazing and Range Management.** Livestock grazing and range management activities include: breeding, grazing, calving, livestock movement; construction, operation, and maintenance of watering facilities, feeding areas, fences, and corrals, consistent with the types and level of historical grazing and ranch management practices; repair, reconstruction, and relocation of roads to accommodate historical grazing and ranch management practices; and repair, maintenance, or installation of ranch management communication equipment (e.g., whip antennas) that are less than 20 feet high. The Ranchwide Agreement requires that an RWMP that includes grazing BMPs be prepared and followed. An Interim RWMP is currently in place and requires that the number and type of livestock grazed are appropriate for the conditions of the ranch and the carrying capacity of the land, and are rotated regularly to protect vegetation and soils; that a variety of water resources be distributed across the land to avoid overuse of riparian areas; and that any changes to the road network or fencing, uses that could impede wildlife movement, be first subject to a site evaluation to avoid sensitive resources (see Interim RWMP at Section 3.2.1, pp. 3.2.1-5, 3.2.1-6, 3.2.1-8). Grazing levels at a maximum total of 14,500 cattle, or equivalent animal units, would continue consistent with current practices. The conservation measures in this TU MSHCP further require USFWS review and approval of a grazing management plan that incorporates required BMPs (see *Sections 4* and *7* of this TU MSHCP).

- **Fuel Management.** Fuel management practices will consist primarily of grazing. Other fuel management activities will be limited to maintaining fuel modification zones created 1) by existing roads, 2) through irrigation and/or vegetation clearing and mowing within 120 feet surrounding existing structures (i.e., back-country cabins, ancillary ranch structures, and other existing structures, and 3) as required by the county and state along county and state roads. These fuel management practices will be reflected in the Fuel Modification Plan subject to USFWS review per the terms of the Implementing Agreement. In areas immediately adjacent to development, fuel management will be governed by a Fire Protection Plan approved by Kern County. For the open space, the Ranchwide Agreement requires that an RWMP that includes fire management BMPs be prepared and followed. An Interim RWMP is currently in place and requires grazing, in accordance with the grazing BMPs described above, to manage and reduce fire fuel loads across the ranch. The Interim RWMP also requires continued maintenance of the ranch's road network for emergency vehicle access and as a fuel break, as well as continued clearing of vegetation around structures. In addition, fireworks are generally prohibited and campfires are limited to designated locations (see Interim RWMP at Section 3.2.7, pp. 3.2.7-3, 3.2.7-4; and Section 5.7). Further, the conservation measures in this TU MSHCP also require that a grazing plan that allows for fuel management be reviewed and approved by USFWS, and the measures prohibit and limit the use of fireworks and explosions, and further limit fuel modification activities near development (e.g., additional restrictions to protect bald eagles around Castac Lake). See *Sections 4* and *7* of this TU MSHCP.

- **Filming.** Filming activities generally consist of temporary on-scene filming and photography-related uses, including, but not limited to the filming and staging of movies, television shows, and commercials; photo shoots; and still photography and related uses. Such activities may include the erection and dismantling of props, temporary installation of trailers and equipment for film crews, filming of on-camera action, catering, rehabilitation of disturbed areas, and the movement of film crews to and from locations. The Ranchwide Agreement requires that an RWMP that includes BMPs for filming activities be prepared and followed. An Interim RWMP is currently in place and requires that the filming location be monitored for cleanup of microtrash, that any temporary construction is first reviewed to avoid sensitive resources, and that any areas disturbed by filming are restored to pre-filming condition, including revegetation (see Interim RWMP at Section 3.2.4, pp. 3.2.4-2, 3.2.4-3). The conservation measures in this TU MSHCP also include requirements to assign a qualified biologist to each film crew, to include daily cleanup requirements to control microtrash, to provide educational materials, to prohibit the construction of permanent structures or production facilities, and to prohibit and limit the use of fireworks or explosives (see *Sections 4* and *7* of this TU MSHCP).

- **Recreation.** (a) Private recreation: Passive non-commercial recreational uses by TRC and its invitees (not the public), including: walking; hiking; sightseeing; climbing; limited equestrian uses; non-motorized biking on roads or trails; bird/wildlife watching and other nature study; photography; picnics; astronomy; archery and target shooting; cross-country snow skiing, snow-shoeing, and sledding; and fishing and boating, excluding overnight camping, except by TRC and its employees consistent with past practices or as may be allowed under a Public Access Plan approved by the Conservancy and by USFWS, or in the TMV Planning Area Open Space as approved by USFWS. In addition, TRC will have the right to use, and to permit its invitees to use, the TU MSHCP Mitigation Lands for other (including commercial) recreational uses to the extent permitted in the Public Access Plan approved by the Conservancy and by USFWS, or in the TMV Planning Area Open Space as approved by USFWS. All private recreation is subject to the requirement that it be conducted in a manner that would avoid adverse impacts to the Covered Species and their habitats or result in less-than-significant impacts. At minimum, the activities must be planned to avoid sensitive species and known occurrences and require the use of existing roads and trails where possible. The private recreation activities will also be limited by BMPs required to be developed through the Ranchwide Agreement as part of the RWMP. An Interim RWMP is currently in place and requires, among other things, that private recreational activities avoid significant impacts to all natural resources, and restricts trail use to avoid proximity to golden eagle (*Aquila chrysaetos*) nesting sites. Access guidelines apply to TRC guests (see Interim RWMP at Section 3.2.14, pp. 3.2.14-2, 3.2.7-3; and Section 5.7). In addition, the conservation measures in this TU MSHCP include recreational restrictions, including development of educational material and provision of that material to guests, as well as

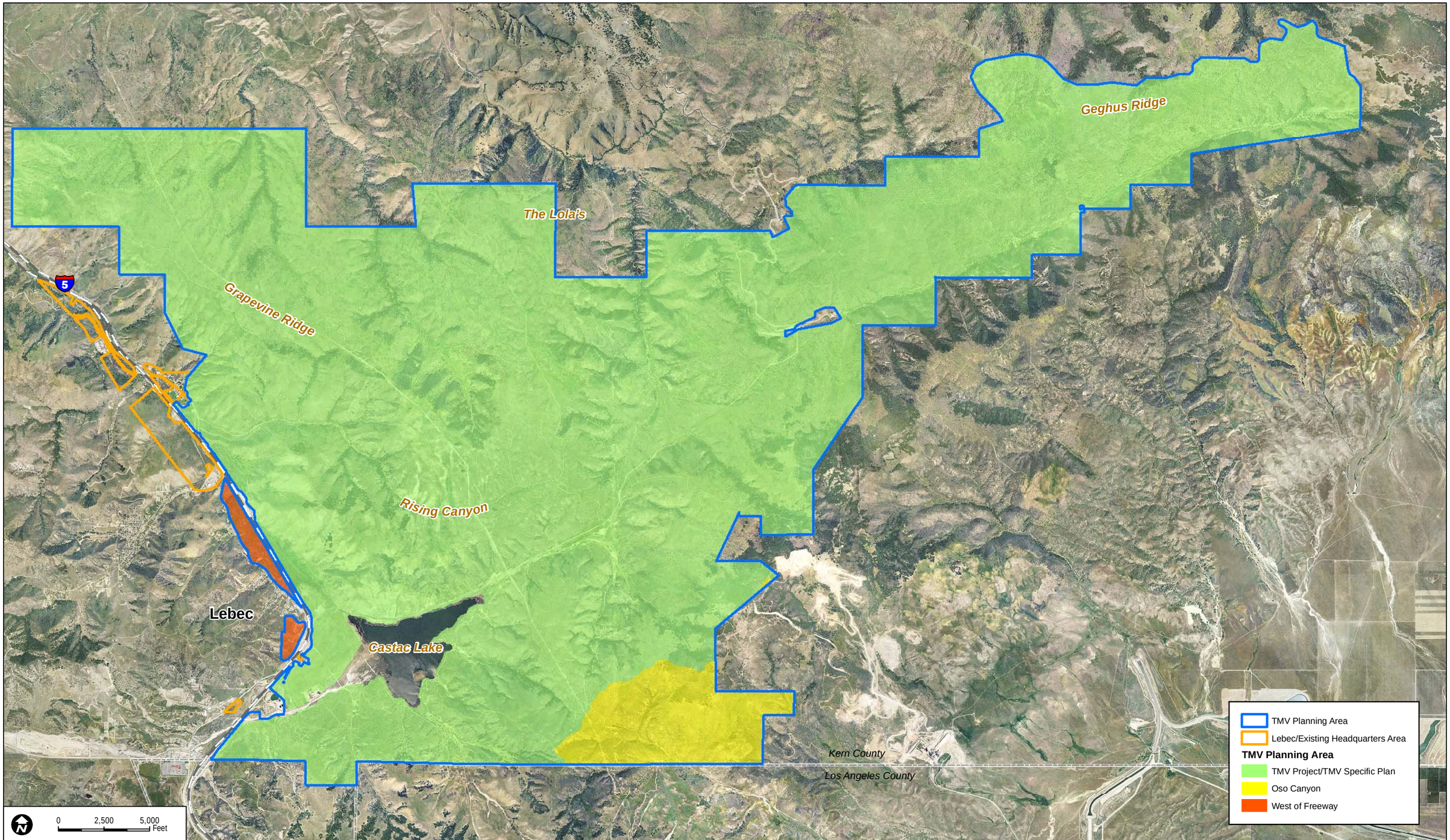
species-specific recreation restrictions (e.g., amphibians, American peregrine falcon (*Falco peregrinus anatum*), bald eagle (*Haliaeetus leucocephalus*), golden eagle, white-tailed kite (*Elanus leucurus*)). See *Sections 4* and *7* of this TU MSHCP.

(b) Public recreation: Recreational activities will also include public recreation to be governed by a Public Access Plan, subject to USFWS review and approval, both during and following the end of the permit term into perpetuity for areas managed by the Conservancy pursuant to the Ranchwide Agreement. The Ranchwide Agreement does not provide for general, unrestricted public access, and the Conservancy's public access program over areas to be managed by the Conservancy currently consists solely of docent-led tours. Public access in the TMV Planning Area Open Space would be restricted to use by TMV Project residents and guests, except where included in the Conservancy's public access program, and would be subject to the requirement that it be conducted in a manner that would avoid adverse impacts to the Covered Species and their habitats or result in less-than-significant impacts. At minimum, the activities must be planned to avoid sensitive species and known occurrences and require the use of existing roads and trails where possible. Development of any future potential recreational facilities, such as relocation of the Pacific Crest National Scenic Trail onto Covered Lands from its current location to the east and south of Tejon Ranch on the floor of the Mojave and Antelope Valleys, or establishment of a State Park or University of California Natural Reserve on the Covered Lands, have not been formally proposed as part of the Conservancy's public access program and are not Covered Activities under the TU MSHCP. Any such additional public access use would require review and approval in writing by USFWS that such use is consistent with the preservation of conservation values of the TU MSHCP Mitigation Lands and would be required to obtain any necessary FESA authorization at that time. In addition, the conservation measures in this TU MSHCP include recreational restrictions, including USFWS review and approval of the Public Access Plan in perpetuity, development of educational material, and provision of that material to guests, as well as species-specific recreation restrictions (e.g., amphibians, American peregrine falcon, bald eagle, golden eagle, white-tailed kite). See *Sections 4* and *7* of this TU MSHCP.

- **Farming Irrigation and Water Diversions.** Farming operations are located on the San Joaquin Valley floor and are not within the Covered Lands. Approximately 232 acres have been mapped as agricultural land in the Covered Lands in the TMV Planning Area. These agricultural uses that remain in open space after the final development disturbance area is identified will continue. Some creek diversions that support farming, including the valley floor farming operations, are located within and around the Covered Lands above the San Joaquin Valley. The significant diversion activities within and adjacent to the Covered Lands consist of the operation, maintenance, repair, and replacement of three weir structures, with an associated water intake, conveyance pipe, and flow meter within

Tejon Creek, Tunis Creek, and El Paso Creek. Water diversions shall not be expanded beyond those permitted or conducted on the Covered Lands as of June 17, 2008 (excludes non-significant water diversion that would be considered de minimis incidental ranch facilities as defined in the Ranchwide Agreement). Farming and irrigation activities would continue in existing areas of the Covered Lands (limited to the TMV Planning Area) subject to the farming BMPs required by the Ranchwide Agreement through the RWMP. An Interim RWMP is currently in place and requires the use of crop planning, biological, and cultural management techniques to reduce the need for pesticides. The farming BMPs also require selection of plants that match climate conditions and are suited for the available water, and the installation of water-usage-reducing irrigation systems, such as drip irrigation and adjusted irrigation levels (see Interim RWMP Section 3.2.2, pp. 3.2.2.-1, 3.2.17-2). Water diversion activities on Covered Lands are limited by the Ranchwide Agreement and the TU MSHCP, so that there will be no significant expansion of groundwater extraction practices as of June 17, 2008, the date of the Ranchwide Agreement, and no major alterations or improvements of the ranch surface for water storage, including water storage in underground aquifers (this limit on water diversion does not include water storage for existing ranch uses).

- **Roads.** A network of generally unpaved roads used for the grazing operation, fire management, and for access to hunting and other recreational activities crosses the Covered Lands. Several paved roads, including ones providing access to the California Aqueduct and to the National Cement plant also occur in the Covered Lands. Use, repair, and maintenance of such roads would occur, and new roads may be constructed, and/or existing roads may be relocated as 1) required by local jurisdictional authorities to provide emergency vehicle or other similar access to the TMV Planning Area, 2) necessary to carry out existing ranch uses, or 3) separately approved by USFWS. Per the Ranchwide Agreement and Interim RWMP, new road construction could occur only if such activities did not significantly impair the conservation value of the affected land, and under the Interim RWMP, proposed new/relocated roads must first be evaluated, including a site assessment to avoid impacts to sensitive resources, and construction must be planned to reduce impacts on sensitive natural resources and limited to a minimal area (see Interim RWMP, p. 3.2.9-3). Finally, road maintenance activities are subject to BMPs related to maintenance for fire prevention, maintenance of berms on dirt roads to handle minor stormwater flows, and dust control management activities on dirt roads (see Interim RWMP at Sections 3.2.2 and 3.2.9, pp. 3.2.2-7, 3.2.7-3, 3.2.9-2). Construction of new roads in open space to serve development is not contemplated; however, emergency vehicle access many be required by Kern County in open space beyond that already contained within the development envelope. It is anticipated that any new emergency vehicle access road would follow existing ranch roads to the extent practicable.



SOURCE: TRC 2007

FIGURE 2-1

TU MSHCP Development Areas

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- **Utilities.** Various utilities currently exist on or cross the Covered Lands. Utility use under the TU MSHCP includes third-party utilities, development-related utilities, and ranch utilities discussed below:

- (a) Third-party utilities. Various major utilities (e.g., gas pipelines, power transmission lines) currently exist on or cross the Covered Lands. Most of these utilities are owned and operated by third parties pursuant to existing easements. Such third-party utilities would not have incidental take authority under the TU MSHCP, and expansion or construction of new utilities pursuant to existing easements is not a Covered Activity.

  (b) Utilities to serve development. Utilities to serve development are contained solely in the TMV Planning Area and restricted as follows:

  - Within the TMV Planning Area, relocation of the following must be within 1,000 feet of the existing alignment: 1) an aboveground transmission line located within TMV Specific Plan Area 1 and 6; (2) an aboveground transmission line in the vicinity of the Lebec Road–I-5 Interchange; (3) an existing aboveground transmission line that runs east from I-5, just north of Castac Lake, (for which relocation will be temporary during construction, and then will be undergrounded within the TMV Planning Area); and (4) various smaller above ground lines (which may be temporarily relocated during construction)

  - Within the development areas, development of new and expanded utilities, other than aboveground transmission lines, provided that such utilities would either be undergrounded (including all new power lines) or, if aboveground, such utilities, including without limitation water tanks, electrical substations, and water and sewage treatment facilities to serve development areas, would be constructed in locations, as feasible, where they are not visually prominent and minimize effects on sensitive resources

  - Within the TMV Planning Area development envelope, two communication towers under 70 feet will be constructed as required by Kern County

  - Smaller cell phone antennas, radio antennas, and other similar vertical communication structures will be permitted uses within the development footprint as long as such structures/antennas are (a) no higher than 10 feet above houses or buildings (taller structures shall require the review and approval of USFWS), assuming the height limits for houses or buildings within the TMV Specific Plan vary between 35 and 45 feet; (b) installed within the TMV Planning Area development envelope and/or Lebec/Existing Headquarters Area; (c) outfitted with anti-perching devices on potential perching surfaces; (d) visible so as to be clearly differentiated from nearby vegetation, other structures, and topography;

and (e) located closer to trees where practicable and consistent with effective operations of communication systems

- Wind farms are prohibited, except that individual wind turbine devices, which have the primary purpose to serve electrical generation needs on site, may be constructed following review and approval by USFWS

- Within the TMV Planning Area Open Space, utilities should be constructed underground in existing roadways or disturbed areas, including temporary, aboveground emergency water lines along or adjacent to the existing ranch road that borders with the Condor Study Area. To the extent that TRC determines it is not feasible to locate such underground utilities in existing roadways, disturbed areas, or development areas outside of sensitive resource areas, the location would be subject to USFWS review and approval.

(c) Utilities to serve the ranch. Various minor utility facilities serve the ranch uses. They are addressed under "Ancillary Ranch Facilities."

The Ranchwide Agreement allows TRC to retain the right to maintain or replace utilities in existence as of June 17, 2008, the date of the Ranchwide Agreement, in their current location, footprint, and size and requires that new or relocated utilities be constructed only with the Conservancy's prior written consent, which shall not be withheld if the proposed activity will not significantly impair the conservation values (see Interim RWMP Section 3.2.9, pp. 3.2.9-1, 3.2.9-3). The TU MSHCP includes additional conservation measures regarding utilities, including prohibitions on wind farms, restrictions on third parties under TRC's control, and restrictions on vertical communication structures. See specifically measures in Section 4.4.1.4.

- **Back-Country Cabins.** Nine back-country cabins exist on Tejon Ranch, including two cabins within the Condor Study Area. Use of these cabins would continue. Under the TU MSHCP, the nine existing back-country cabins could be maintained, improved, repaired, replaced, or reconstructed in their existing locations, within their existing footprints and without substantial increase in height. The one cabin within the TMV development envelope maybe converted to another use. The nine cabins could also be constructed, expanded, relocated, or removed in the TU MSHCP Mitigation Lands with the approval of USFWS if USFWS determines that such activity is consistent with preservation of the conservation values of the TU MSHCP Mitigation Lands, provided that none of the seven cabins that currently exist outside of the Condor Study Area could be relocated to the Condor Study Area. The conservation measures in Section 4.4.1.4 require that no other back-country cabins be constructed in or relocated to the Condor Study Area. Any of the other seven back-country cabins that currently exist on the ranch may be relocated in the TU MSHCP Mitigation Lands with the approval of USFWS. No new cabins could be

constructed unless one of the existing nine cabins is removed or demolished (the existing cabin within the TMV development area is considered demolished). Power for relocated cabins must be undergrounded or power must be generated on or near the cabin location, so long as USFWS reviews and approves the power generation or sources. Under the Ranchwide Agreement, cabins may be relocated to another location only if such activity does not significantly impair the conservation values of the Covered Lands. The Interim RWMP requires that new or relocated cabins be first subject to a site evaluation to avoid impacts to sensitive natural resources, and that design and construction of new cabins meet or exceed applicable building code and water and energy efficiency requirements (see Interim RWMP at Section 3.2.13, p. 3.2.13-2).

- **Ancillary Ranch Structures.** Ancillary ranch structures would be preserved and maintained to the extent in existence as of June 17, 2008, the date of the Ranchwide Agreement, and would be maintained, expanded, relocated, or constructed to support ranch needs so long as the activity is de minimis. Ancillary ranch structures include squeezes, loading chutes, holding and feeding fields, corrals, branding traps, barns, sewage disposal facilities, livestock and wildlife watering facilities, and utilities serving existing ranch uses. "De minimis activities" means maintenance, expansion, construction, relocation, or removal of structures listed above, and other, similar types of structures as necessary to support existing ranch uses at historical levels; de minimis activities do not include construction or relocation of barns, roads, watering facilities that are not minor (stock ponds and modifications of springs, ponds, and other natural water bodies are not considered minor), power transmission lines and other associated facilities, oil and gas pipelines and associated facilities, and other, similar types of activities. The enlargement, expansion, or new construction of ancillary ranch structures (excluding back-country cabins addressed above) in existing locations, within existing footprints, and without a substantial increase in height, also constitutes a de minimis activity; any other enlargement, expansion, or new construction is not considered de minimis. Non–de minimis activities associated with ancillary ranch structures are also allowed 1) if the activity is located in disturbed areas (e.g., undergrounding utilities in road rights-of-way), or 2) following a meet-and-confer process with USFWS to insure that the activity associated with an ancillary ranch structure avoids or adequately minimizes impacts to Covered Species and their habitats. In addition, in areas subject to the Ranchwide Agreement, ancillary ranch uses that are not de minimis may be expanded, constructed new, relocated, or removed with the Conservancy's prior written consent, which shall not be withheld if the proposed activity will not significantly impair the conservation values. The Interim RWMP requires that new structures first be subject to a site evaluation to avoid impacts to sensitive natural resources, that construction be planned to reduce impacts on sensitive natural resources and limited to a minimal area, and that such activities not significantly impair conservation values (see Interim RWMP Section 3.2.9, pp. 3.2.9-1, 3.2.9-3).

- **Fencing.** Fences exist throughout the Covered Lands. Existing fences would be maintained and new fencing could be constructed and maintained as required to support existing ranch uses at historical levels throughout the Covered Lands, and for mitigation, enhancement, or restoration, provided that new fencing, by design and location, would not unreasonably interfere with the movement, nesting, or foraging of, and would avoid known occurrences of, the Covered Species and any other FESA listed species. In addition, the Ranchwide Agreement requires that an RWMP that includes fencing BMPs be prepared and followed; an Interim RWMP is currently in place and requires that TRC must review requests for new fences and must first review for sensitive natural resources that could be affected, use "wildlife friendly" design to the extent feasible, and where appropriate, modify fencing to allow wildlife passage (see Interim RWMP Section 3.2.11, pp. 3.2.11-2, 3.2.11-3). The conservation measures in this TU MSHCP further require USFWS review and approval of a grazing management plan that incorporates required BMPs for fencing (see *Sections 4* and *7* of this TU MSHCP).

- **Lebec/Existing Headquarters Uses.** TRC's corporate headquarters are located immediately adjacent to I-5 and within the approximately 410-acre Lebec/Existing Headquarters Area. Currently, this area includes a number of corporate headquarters buildings, an antique shop, a post office, a church, and several single-family residences for ranch employees. Existing activity in the Lebec/Existing Headquarters Area would continue to occur. Construction of additional structures within this area is considered part of the commercial and residential development Covered Activities.

- **Mitigation, Monitoring, and Management.** Mitigation, monitoring, and management activities to carry out identified biological goals and objectives for Covered Species included in the TU MSHCP or other resource agency permits for the commercial and residential Covered Activities, as well as mitigation, monitoring, and management activities imposed pursuant to any local, state, or Federal approval of development on Tejon Ranch shall be carried out in accordance with FESA and be reviewed by USFWS. The initial preservation, protection, or conservation of the biological and physical conditions on the Easement Property existing as of the effective date of the ITP may not be used to satisfy any such mitigation obligation imposed by USFWS beyond the TU MSHCP (except that USFWS acknowledges that other agencies may credit TRC's preservation activities for mitigation imposed by such other agencies), and any restoration, enhancement, or similar mitigation activities shall not result in unpermitted take or unpermitted adverse habitat modification under FESA. "Mitigation" includes conservation, preservation, monitoring, enhancement, and restoration of land and natural resource values.

The commercial hunting program at Tejon Ranch, which is regulated by the California Department of Fish and Game, is not a Covered Activity; no take of any Federally protected

species is authorized, and the hunting program must continue to be managed to avoid the take of any Federally protected species. However, TRC banned the use of lead ammunition on its lands effective January 1, 2008. As required by this TU MSHCP, the ban will exist in perpetuity over the entire 270,365 acres of the ranch, including the Covered Lands, and applies to all hunters registering with TRC's Wildlife Management Operation for hunting access licenses. The ban also applies to all TRC employees or third parties who are engaged in any animal damage control or nuisance abatement activities on the ranch. TRC is enforcing this ban through the issuance of hunting permits and by the execution of the "Notice, Acknowledgement and Agreement Relating to the Lead Ammunition Ban and the Protection of the California Condor" and "Hunting Rules and Regulations" by all hunters on ranch property.

2.2.2 OPEN SPACE PRESERVATION

The TU MSHCP preserves the vast majority (approximately 129,318 acres or 91%) of the Covered Lands in open space, including 116,523 acres as TU MSHCP Mitigation Lands and 12,795 acres of Existing Conservation Easement Areas, which will be managed as open space in accordance with the applicable conservation easements, and during the permit term, in accordance with the TU MSHCP. Other than the limited Plan-Wide Activities, described above, no development would be a Covered Activity, and no development could occur, either during or after the permit term, in these open space areas. The open space areas are described below.

- **TU MSHCP Mitigation Lands:**

  Established Open Space: Established Open Space consists of approximately 93,522 acres of the Covered Lands, including the entirety of the approximately 37,099-acre Condor Study Area. Consistent with the terms of the Ranchwide Agreement and this TU MSHCP, other than the limited Plan-Wide Activities, described above, no development would occur within the Established Open Space. Commercial hunting would continue to occur, but is not a Covered Activity, as described above.

  The Established Open Space, including the Condor Study Area, is to be preserved as mitigation under the TU MSHCP. Conservation easements over the Condor Study Area and the remainder of the Established Open Space are required per the terms of the Implementing Agreement (*Appendix C*). Dedicated conservation of TU MSHCP Mitigation Lands will be phased. Per the terms of the Implementing Agreement, a conservation easement is required to be recorded on the Initial Mitigation Lands, which include the Condor Study Area portion of the Established Open Space (see *Figure 1-3*), prior to commencement of grading of the TMV Project. Conservation of the Remaining Mitigation Lands, which include the areas of the Established Open Space outside of the Condor Study Area, will be committed prior to the end of the permit term in accordance with the requirements set forth in the Implementing Agreement.

TMV Planning Area Open Space: Within the TMV Planning Area, planned open space represents approximately 23,001 acres of the 28,253-acre area. The 23,001 acres of TMV Planning Area Open Space includes 1,773 acres of fuel modification. The TMV Planning Area Open Space is required to be preserved as mitigation and such conservation is subject to the terms of the Implementing Agreement. Dedicated conservation of TU MSHCP Mitigation Lands will be phased. Per the terms of the Implementing Agreement, a conservation easement is required to be recorded on the Initial Mitigation Lands, which include a portion of the TMV Planning Area Open Space (see *Figure 1-3*), prior to commencement of grading of the TMV Project. At USFWS's discretion, USFWS may agree to extend the obligation to record a conservation easement over the TMV Planning Area Open Space portion of the Initial Mitigation Lands. If such an extension is granted, TRC must record an irrevocable offer to dedicate prior to initiation of grading of the TMV Project. Conservation of the Remaining Mitigation Lands, which include the remaining portion of the TMV Planning Area Open Space (see *Figure 1-3*), will be committed through a conservation easement or legally equivalent mechanism prior to the end of the permit term in accordance with the requirements set forth in the Implementing Agreement.

- **Other Open Space Lands:**

Existing Conservation Easement Areas: In addition, under the Ranchwide Agreement, an additional 12,795 acres have been acquired as permanent conservation lands and will be preserved as permanent open space. No commercial, residential, or industrial development in this area is included as a Covered Activity in this TU MSHCP. These lands will be managed consistent with the terms of the applicable conservation easements, and during the permit term, in accordance with the TU MSHCP. The natural resource values of these areas could be improved and/or enhanced as mitigation for other TRC needs.

2.2.3 COMMERCIAL AND RESIDENTIAL DEVELOPMENT ACTIVITIES

Commercial and residential Development Activities are proposed as Covered Activities. Specifically, future development within Covered Lands would be limited to the TMV Planning Area and the Lebec/Existing Headquarters Area. Permit coverage will be extended to the Tejon-Castac Water District (TCWD) through a certificate of inclusion per Section 2.2.4, Certificates of Inclusion Holders and Lessees, below, for 16 acres used for operations and expansion of water infrastructure on a parcel owned by the Department of Water Resources. The TU MSHCP assumes development of these areas as Covered Activities under the TU MSHCP. The effects on Covered Species associated with the commercial and residential Development Activities described in this section are addressed by this TU MSHCP. Actual development would likely proceed as separate projects with individual entitlement and permitting requirements, and

project-specific permit applications and mitigation plans would be developed as needed depending on resources affected (such as jurisdictional wetlands) and permits required.

- **TMV Planning Area**

  The 28,253-acre TMV Planning Area consists of the TMV Specific Plan Area, Oso Canyon, and the West of the Freeway area (see *Figure 2-1*). Collectively, in the TMV Planning Area, a total of 3,624 dwelling units and 464,920 square feet of commercial development could occur in approximately 5,252 acres of disturbed land as described below.

  1. TMV Specific Plan Area

  The TMV Specific Plan Area is approximately 26,417 acres of the 28,253-acre TMV Planning Area in the southwest portion of the Covered Lands. This portion of the TMV Planning Area includes the low-density TMV Project, as approved by the Kern County Board of Supervisors on October 5, 2009. Specifically, the county approvals consisted of General Plan amendments, county TMV Specific Plan approval, Draft and Final Environmental Impact Report (EIR), EIR certification, Mitigation Monitoring and Reporting Program, and Staff Reports (together TMV Project approvals). The TMV Project would include up to 3,450 residences, up to 160,000 square feet of commercial development, two golf courses, an equestrian center, up to 750 hotel rooms, and up to 350,000 square feet of support uses (e.g., hotel lobby support services, food and beverage service, golf clubhouses, equestrian facilities, and private recreation facilities). The TU MSHCP includes various planning and enforcement mechanisms to minimize disturbance associated with the planned development (see Section 7.2, Avoidance, Minimization, and Mitigation Measures). The net development disturbance area in the TMV Specific Plan Area is approximately 5,082 acres; this development could occur within a 7,860-acre development envelope.

  2. Oso Canyon

  No development is currently proposed in the 1,666-acre Oso Canyon; however, if development were to proceed there, the total disturbance area in the TMV Specific Plan Area could not increase. The TU MSHCP includes various planning and enforcement mechanisms to minimize disturbance associated with the planned development (see Section 7.2, Avoidance, Minimization, and Mitigation Measures). Any development to occur within Oso Canyon would occur within a 506-acre development envelope; the development would be subject to the development yields proposed in the TMV Specific Plan Area and would not result in additional land disturbance, dwelling units, or commercial space.

3. West of Freeway

Development in the West of Freeway area is assumed to proceed consistent with the current General Plan designations. This small, 170-acre area consists of two subareas: (1) a 153-acre portion of the Covered Lands located west of I-5, which is assumed to be developed with 173 dwelling units and 304,920 square feet of commercial space, consistent with the Kern County General Plan land use designations in this area; and (2) a 17-acre area designated for extensive agriculture in the Kern County General Plan that could be developed with one dwelling unit; therefore, a dwelling unit and an associated 17-acre disturbance area has been included. Together, the area known as West of Freeway is considered to have a 170-acre disturbance area. No development plans currently exist for this area, but the TU MSHCP includes various planning and enforcement mechanisms to minimize disturbance associated with the planned development (see Section 7.2, Avoidance, Minimization, and Mitigation Measures).

- **Lebec/Existing Headquarters Area**

  This area is approximately 410 acres (which includes the approximately 265 acres that could be developed and 145 acres that would not be developed, per *Table 2-1*) located along I-5 in the northerly portion of the Covered Lands (see *Figure 2-1*). The Lebec/Existing Headquarters Area includes both the existing headquarters (corporate headquarters buildings, an antique shop, a post office, and several single-family residences) located adjacent to I-5 and General Plan 4.3 (Specific Plan Required)–designated areas east and west of I-5. TRC has no current development plans for this area; however, the TU MSHCP includes various planning and enforcement mechanisms to minimize disturbance associated with any future planned development (see Section 7.2, Avoidance, Minimization, and Mitigation Measures). Development of up to eight dwelling units and 1,339,470 square feet of commercial development would be consistent with the Kern County General Plan land use designations in this area. Although TRC has no plans to further develop this area, it is included in the TU MSHCP as a Covered Activity.

- **TCWD Parcel**

  Up to 16 acres of land may be utilized to operate and/or expand TCWD water system infrastructure facilities (see *Table 2-1* and *Figure 2-1*).

The total development allowed under this TU MSHCP, if all of the development described above were to occur, is 3,632 dwelling units and 1,804,390 square feet of commercial development, resulting in a net disturbance area of 5,533 acres (4% of Covered Lands).

2.2.4 CERTIFICATES OF INCLUSION HOLDERS AND LESSEES

The incidental take authorization is sought solely for TRC, its subsidiaries, and its affiliates, and their employees conducting Covered Activities under the direct control (for purposes of enforcing the requirements and restrictions of the TU MSHCP and ITP) of TRC, and will not apply to any activities conducted by other parties over which TRC has not retained, and has not committed to exercise direct control for purposes of this TU MSHCP.

On one or more occasions after issuance of the ITP, TRC may propose to apply on a limited basis to one or more entities applicable requirements of, and protections afforded by, this TU MSHCP and the ITP. TRC would issue to the entity a certificate of inclusion. An included entity would be a third party that (1) proposes to undertake, or participate in, a specified Covered Activity; or (2) intends to acquire Covered Lands from TRC; or (3) is contracted to manage all or portions of the Condor Study Area or other undeveloped portions of the Covered Lands for conservation purposes. Potential certificate-of-inclusion holders include Tejon Mountain Village LLC, a joint venture between TRC and DMB Associates Inc., and TCWD. Additional potential entities are likely to be utilities, developers not affiliated with TRC, other companies that may be engaged in short-term construction or other ground-disturbing activities associated with a Covered Activity, and one or more qualified conservation or stewardship organizations, such as the Conservancy. The ITP will apply solely to the actions of an included entity under the direct control of TRC (for purposes of enforcing the requirements and restrictions of the TU MSHCP and ITP) that constitute, or fall within, the specified Covered Activity. Upon becoming an included entity, a third party will be required to perform all actions that constitute, or fall within, the specified Covered Activity or on the acquired Covered Lands in accordance with applicable provisions of the TU MSHCP, Implementing Agreement, and ITP. The included entity will not assume obligations otherwise imposed by the TU MSHCP, Implementing Agreement, and ITP that are unrelated to the specified Covered Activity or acquired Covered Lands. If any action of an included entity results in an incidental take from a Covered Activity on Covered Lands, it will be considered an incidental take under this TU MSHCP and the ITP. Notwithstanding the issuance of a certificate of inclusion to a third party, TRC will remain legally responsible for implementing the TU MSHCP and ITP and legally liable for any violation of the TU MSHCP or ITP by a third party covered by a certificate of inclusion.

Thus, except where, and to the extent that, the ITP has been transferred pursuant to the terms of the Implementing Agreement and applicable law and regulations, the incidental take authorization conferred by the ITP will cover solely TRC and each holder of a certificate of inclusion. While third-party lessees will not be covered for take, per the terms of the Implementing Agreement, TRC will provide that in all future leases over which TRC has legal authority, the third-party lessees holding and/or acting under such future leases shall abide by all applicable terms of the TU MSHCP, the Implementing Agreement, and the ITP when such third-party lessee(s) are engaging in Covered Activities on the Covered Lands. TRC will also enforce

the terms of such future leases against such third-party lessees holding or acting under such future leases. TRC will enforce against all third-party lessees holding or acting under existing leases all applicable terms of the TU MSHCP, the Implementing Agreement, and the ITP where TRC has retained under such existing leases authority sufficient to implement the TU MSHCP.

2.3 ACTIVITIES NOT COVERED BY PERMIT

Hunting is not included as a Covered Activity but occurs across the Covered Lands. The principal issue for the California condor (*Gymnogyps californianus*) and hunting is the use of lead ammunition. The perpetual ranchwide ban on lead ammunition described above is being implemented throughout the ranch, including on Covered Lands.

Additionally, as described in greater detail in Section 2.2.4, Certificates of Inclusion Holders and Lessees, third-party activities at Tejon Ranch are not Covered Activities, unless (1) the scope of the lessee's activities are included as Covered Activities, and (2) the lessee executes an amended lease or other form of agreement with TRC whereby the lessee agrees to comply with all requirements of the TU MSHCP as directed by TRC and obtains a certificate of inclusion. Mineral extraction activities are not Covered Activities under the TU MSHCP. Adding mineral leases as a Covered Activity to the TU MSHCP would require an amendment as described in *Section 8, Changed Circumstances and Plan Implementation*, and an amendment to the ITP.

The addition or modification of any Covered Activities would require USFWS approval and modifications to the TU MSHCP and related documents, including the ITP, as required.

2.4 OTHER TAKE AVOIDANCE AND MINIMIZATION MEASURES

The primary mitigation and conservation measure under the TU MSHCP is the permanent preservation and protection of approximately 129,318 acres or 91% of the Covered Lands in open space, including 116,523 acres as TU MSHCP Mitigation Lands and 12,795 acres of Existing Conservation Easement Areas, as habitat for the Covered Species. In addition, the TU MSHCP contains numerous take avoidance and minimization measures to reduce impacts to the condor and other Covered Species. Those measures are discussed in detail in *Sections 4* and *7* of this TU MSHCP.

2.5 AUTHORIZED TAKE OF CONDORS AND OTHER COVERED SPECIES

Under the TU MSHCP, habituation that results in a need for capture and relocation would constitute a non-lethal "take" of the California condor resulting from a Covered Activity. As described in *Section 4*, if approved, during the permit term, up to four such non-lethal takes of condors would be allowed. No lethal takes of the California condor are requested under an ITP.

As discussed in *Section 6, Potential Biological Impacts/Take Assessment*, incidental take coverage for the six covered plants is not needed or provided for in FESA. No lethal take of any California fully protected species is requested under an ITP, and the potential for incidental take of the 20 wildlife Other Covered Species as discussed in *Section 6*, if approved, would be authorized under an ITP.

2.6 OTHER PLAN ELEMENTS

The TU MSHCP also incorporates an adaptive management program consistent with the USFWS guidance regarding habitat conservation plans (USFWS 1996) and in USFWS's five-point addendum dated June 1, 2000. The overriding management goal of this TU MSHCP is to establish and maintain a conservation area that focuses on achieving the measurable goals and objectives identified for the Covered Species in *Sections 4* and *7* of this TU MSHCP. The adaptive management component of the plan is outlined in Section 4.6, as applied to condors, and in Section 7.5 with regard to the Other Covered Species.

In addition, in compliance with USFWS's "No Surprises Rule," this TU MSHCP identifies several reasonably foreseeable changed circumstances and required measures to respond to those changed circumstances. Changed circumstances identified in the plan include drought/climate change, fire/climate change, and new listings of species/designation of critical habitat not covered by the TU MSHCP. Changed circumstances and plan responses are identified in *Section 8*.

Section 9, *Funding*, sets forth the funding plan, and Section 10, *Alternatives*, identifies alternatives to the take proposed under the TU MSHCP considered by TRC and explains why those alternatives were not selected.

Finally, the TU MSHCP includes an agreement, the Implementing Agreement, which describes the process TRC and USFWS intend to follow to ensure successful implementation of the TU MSHCP in accordance with the ITP and governing Federal law. The Implementing Agreement is attached as *Appendix C* to the TU MSHCP.

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3. ENVIRONMENTAL SETTING

3.1 CLIMATE

Local climate determines patterns of available moisture and temperature and wind extremes, which are critical life-serving processes for all types of organisms. The climate of the Covered Lands area is influenced by a moister Mediterranean atmosphere to the west and a drier continental climate to the east. Consequently, the climate is characterized as hot and semi-arid to sub-humid (USDA 1997). Divisions between semi-arid and sub-humid climates are based on several meteorological indices that describe the relationship between precipitation and evapotranspiration in a region. Summer temperatures are often high with low humidity, while winter temperatures remain low with relatively abundant moisture compared to the more arid areas to the east. The mean annual precipitation is about 10 to 20 inches, nearly all of which is rain, and annual temperatures average between 45°F and 60°F. The mean freeze-free period is from 150 to 250 days (USDA 1997).

The nearest weather station to the Covered Lands is located in Sandberg, California (34.45°N; 118.43°W) at an elevation of 4,510 feet above mean sea level (amsl) (National Oceanic and Atmospheric Administration 2004). The average temperature at that station is 56°F, with summer high temperatures in the 80s and low temperatures in the 60s. High temperatures in the winter average in the 40s, with lows averaging around 35°F. Precipitation occurs primarily from November through March; mean annual precipitation is 12 inches (Western Regional Climate Center 2007).

3.2 TOPOGRAPHY/GEOLOGY

Based on landform, the ranch can be divided into two major sections—the Tehachapi Uplands and the floors of the San Joaquin (Kern County) and Antelope (Los Angeles County) Valleys. This Tehachapi Uplands Multiple Species Habitat Conservation Plan (TU MSHCP) covers the Tehachapi Uplands (Covered Lands). The Tehachapi Uplands are defined as the area of the ranch generally above 2,000 feet amsl on the north (San Joaquin Valley) side of the mountains and generally above 3,500 feet amsl on the south (Antelope Valley) side; on the south side the elevation ranges from about 3,200 feet amsl to about 4,700 feet amsl, following the Los Angeles County line, with an average elevation of 4,100 feet amsl. Maximum elevation of the Tehachapi Uplands is approximately 7,000 feet. The Tehachapi Uplands include the Tunis and Winters Ridge complex, which generally consists of the area between 2,000 feet amsl and the ridgelines between Pastoria Creek on the west and El Paso Creek on the east. The Tunis and Winters Ridge area is the area designated by this TU MSHCP to be, and will be usually referred to as, the California Condor Study Area. The valley floor areas include the San Joaquin Valley floor to the north and the Antelope Valley floor and the Los Angeles County line to the south. The valley floor areas are not included within Covered Lands.

The predominant general vegetation community in the Tehachapi Uplands is woodland (defined as areas with greater than 40% cover). Savannah and grassland are the secondary dominant vegetation communities. These three general communities thus account for approximately 78% of the vegetation on the Covered Lands. The woodlands on the Covered Lands represent several types of oak woodlands that are characterized by the dominant species in the classification, including black oak (*Quercus kelloggii*), blue oak (*Quercus douglasii*), canyon oak (*Quercus chrysolepis*), interior live oak (*Quercus wislizenii*), white oak (a mix of blue oak and valley oak [*Quercus lobata*]), and mixed oak (a mix of blue oak, black oak, canyon oak, interior live oak, white oak, and gray pine [*Pinus sabiniana*]). Other woodland types include California buckeye (*Aesculus californica*), gray pine, and pinyon pine (*Pinus monophylla*) that comprise much smaller areas of the Covered Lands. Similar to the woodlands, the savannahs are of several types, including black oak, blue oak, canyon oak, interior live oak, mixed oak, white oak, and gray pine. A white fir–black oak (*Abies concolor–Q. kelloggii*) community is present in the vicinity of the upper reaches of the Tunis Creek and El Paso Creek drainages. The southeast slopes of the Tehachapi Uplands support a mixed oak–chaparral community, which varies in composition and dominance depending on elevation, slope, and exposure. Riparian communities that support large trees, such as western sycamore (*Platanus racemosa*), cottonwood (*Populus fremontii*), and willows (*Salix* sp.), are present along many of the major drainages.

Vegetation of the portions of the San Joaquin Valley foothills covered by this TU MSHCP consists primarily of grasslands dominated by non-native plants. Small areas of grasslands dominated by native plants and Mojavean scrub–supporting species, such as juniper (*Juniperus californicus*), pinyon pine, and Joshua tree (*Yucca brevifolia*), are present in parts of the Antelope Valley foothills portion of the Covered Lands.

One lake, Castac Lake, located near the south end of the ranch in the Tehachapi Uplands, is within the area covered by this TU MSHCP. Numerous smaller stock ponds are present throughout the ranch, including on lands covered by this TU MSHCP.

Geology influences biological resources in a variety of ways. For example, geologic formations and fault zones determine rates of sedimentation within streams, affecting suitability for aquatic wildlife. Resistance to weathering will often result in cliff and rock outcrop formations that provide nesting locations for certain raptor species. Plant species may be adapted to local mineral composition, resulting in endemism.

Within the Tehachapi Uplands, Mesozoic granitic rocks predominate (USDA 1997). Other formations in the region include pre-batholith metamorphic rocks; Eocene, Oligocene, and Miocene sedimentary rocks; and, in the Castac Valley, Quaternary alluvium. The Covered Lands are characterized by the intersection of two major fault systems: the San Andreas fault, running north–south, and the Garlock fault, running in a northeasterly to southwesterly direction and terminating at the intersection with the San Andreas fault. Along the Garlock fault, a magnitude

5.7 earthquake occurred near the town of Mojave on July 11, 1992, and there is abundant evidence of prehistoric earthquakes, including activity within the last 11,000 years. Numerous other fault zones subsidiary to the San Andreas and Garlock faults occur on the Covered Lands, although none show evidence of activity in the Covered Lands during the last 11,000 years (ENGEO 2008).

South of the Garlock fault, the principal rock type is Tejon Lookout granite, a biotite granite that is characterized by erosion gullies and sediment-filled stream channels. This was the principal rock type encountered during the construction of the Carley V. Porter California Aqueduct tunnel through the site. Even at depths of 1,600 feet, the rock was described as intensely fractured, or crushed and decomposed. North of Geghus Ridge, the most common rock type is Lebec quartz monzonite. This formation is characterized by rounded hills and steep slopes with moderate to severe erosion. Also in the Geghus Ridge area, a metamorphic rock, Pelona schist, is present. The Pelona schist rock formation is characterized by rounded hills and gently rolling ridge tops (ENGEO 2008).

School Canyon granite, which is similar to the Tejon Lookout granite but is more resistant to weathering, forms jagged rock outcrops as seen from Rising Canyon. The most common rock type in the north-central portions of the Covered Lands is hornblende diorite. This rock color and formation has been altered in many places by movement along Pastoria thrust and Garlock fault. The geology in the southern part of the site contains a portion of a larger limestone formation. This limestone is a metamorphosed type with lesser components of hornfels, schist, and quartzite. The limestone formation is relatively resistant to weathering and thus forms outcrops and cliffs (ENGEO 2008).

Metasedimentary rock types, including hornfels and schists, marble, and quartzites, are sporadically distributed in small areas relatively near the Garlock fault. With regard to sediment layers, younger (Holocene-age) alluvium, colluvium, and debris flows are common within Castac Valley, as well as larger canyons, such as Crane Canyon and Bear Trap Canyon. Older (Pleistocene-age) alluvium, colluvium, and debris flows are present on the highest ridge tops on the site.

Groundwater patterns were studied generally by ENGEO within the TMV Planning Area (ENGEO 2008). In Castac Valley, a layer of rock approximately 20 to 30 feet below the ground surface helps maintains a shallow groundwater aquifer approximately 5.5 to 20 feet below the ground surface. This aquifer is hydrologically connected to Castac Lake. East of the lake, groundwater is deeper, on average, measured at 15 feet in one location. Throughout the site, springs and seeps, often very small in size, occur in canyons and valleys.

3.3 HYDROLOGY/STREAMS, RIVERS, DRAINAGES

Hydrologic processes are important for many plant and animal species. Watershed size, topography, geology, and soils combine to influence flow rates within streams that may vary according to storm intensity. A recent hydrology study was completed for the TMV Planning Area (Stantec 2008). That study includes refinement of watershed areas (also referred to as drainage basin areas) and storm discharge rates. The available floodplain data from the Federal Emergency Management Agency (FEMA) were also reviewed (FEMA 1996).

Most of the Covered Lands drain toward the San Joaquin Valley and the southern part of the Great Central Valley and belong to the Grapevine Hydrologic Unit, which is part of the Tulare Lake Hydrologic Region (State of California 2007). The site supports four drainage areas: Castac Lake, Grapevine Creek, Tehachapi Mountains, and Pastoria Creek. The first three drainage areas drain toward the San Joaquin Valley.

The Castac Lake drainage area occupies over 38,000 acres, extending west along Cuddy Creek through the communities of Piñon Pine Estates, Cuddy Valley, Lake of the Woods, and Frazier Park, as well as the Los Padres National Forest. North of Castac Lake, drainage flows from the lake into the Grapevine drainage area. The main stream through the area is Grapevine Creek, which parallels Interstate 5 (I-5). The western portion of the drainage area is mainly off site, receiving flows from O'Neil Creek. The eastern portion of the drainage receives flows from Rising Canyon and two unnamed tributaries north of Rising Canyon.

Much of the Tehachapi Mountains drains northward and includes Monroe Creek, Silver Creek, Squirrel Creek, and many other smaller drainages extending eastward immediately north of Geghus Ridge. Bear Trap Canyon, Palos Altos Creek, and Pastoria Creek are included in the Pastoria Creek drainage area. Northerly draining streams in the Covered Lands include Tejon Creek, El Paso Creek, Tunis Creek, Pastoria Creek, Live Oak Creek, and Grapevine Creek. Some areas along the southern portion of the Covered Lands drain to the southeast toward the Antelope Valley. These southeasterly draining portions of the study area are in the South Lahontan Hydrologic Region.

3.4 EXISTING LAND USE

The majority of the Covered Lands is currently vacant but is characteristic of a landscape that has been used for ranching and hunting for many years. Evidence of this use includes a browse line from cattle on trees, as well as field and slope erosion and stream sedimentation. Evidence of rooting and tilling by feral pigs (a target species for hunters in the Tejon Ranchcorp [TRC] commercial hunting program) and grazing by cattle is widespread on site. Water impoundments and diversion of natural springs associated with ranching activities have reduced natural water flows on site. Flocks of non-native European starlings (*Sturnus vulgaris*), which may compete with native cavity nesters, are present on site. Nevertheless, the ranching uses over the past 100

years have resulted in the rich mosaic of productive habitats and variety of species on the Covered Lands that exist today.

Primary current land uses on the ranch are livestock grazing and farming. Livestock grazing occurs ranch-wide on approximately 240,000 of the ranch's approximately 270,000 acres. Under the current management regime, the number of cattle on the ranch ranges from 8,000 to 17,000, with an average of 14,500. Sheep are sometimes grazed on the eastern part of the ranch. Numerous improvements for grazing, including fences, watering systems, and corrals, are present throughout the ranch. The vast majority of cultivated farmland is in the San Joaquin Valley floor and is not covered by this TU MSHCP. There is a small area of vineyards and orchards on the Covered Lands.

A wide variety of other uses currently occur on the ranch as a whole, including mining/quarries, utility corridors and antennae farms, film location rentals, game management, and private recreation, including equestrian facilities and events. On the Covered Lands, there are two active gravel quarries (the National Cement plant and La Liebre). The National Cement plant currently occupies approximately 2,438 acres from the toe of the mountains to the ridgeline in a watershed that drains into the Antelope Valley; the La Liebre Mine is situated on approximately 198 acres to the northeast of the National Cement plant. Utilities, including the California Aqueduct, electric and telecommunication lines, and oil pipeline easements, are located on the Covered Lands. In addition, I-5 crosses the western end of the ranch in the Covered Lands. State Route (SR) 138 crosses approximately 5 miles of the southern part of the ranch in the Antelope Valley, and SR-58 and SR-223 cross approximately 10 miles of the northern part of the ranch. The latter two roads are within the lands covered by the TU MSHCP. Three mostly paved Department of Water Resources roads are present on the ranch: one running from near Castac Lake up the central valley of the Tehachapi Uplands and over to the pumping plant in the San Joaquin Valley; a second to the pumping plant in the San Joaquin Valley; and a third from 300th Street in the Antelope Valley to where the California Aqueduct splits into east and west branches. The first road is within lands covered by this TU MSHCP, as are portions of a paved road to the National Cement plant.

3.5 PLANNED SURROUNDING LAND USES OUTSIDE COVERED LANDS

Surrounding land uses within the TRC lands to the south, north, and east of the Covered Lands are similar to existing on-site land use and zoning designations and generally include agricultural and estate residential land use designations. Future planned uses for portions of these TRC lands include Centennial (a new community proposed in Los Angeles County), Tejon Ranch Commerce Center (an approved development area in Kern County that is now being completed), and, in the longer term, Grapevine (a conceptual development area contemplated in the Ranchwide Agreement, also within Kern County). These future planned land uses are not within the Covered Lands and are not included in the TU MSHCP. Planned land uses outside the TRC

ownership area to the west are consistent with the existing rural residential and estate residential development in the communities of Lebec and Frazier Park, and planned land uses (including planned projects such as Gorman Post Ranch and Frazier Park Estates) are governed by Kern County General Plan and zoning designations. Also, public infrastructure projects are planned in the vicinity of the Covered Lands, including wind farms and a transmission line to the east of the Covered Lands.

Future growth is somewhat limited in the area around the Covered Lands due to the extensive public lands, including the Los Padres National Forest, and Wind Wolves Preserve lands (private conserved lands), which extend west (see *Figure 1-1, Regional Context Map*). Additionally, the Ranchwide Agreement provides for the conservation in perpetuity of approximately 133,700 acres of Tejon Ranch outside of the Covered Lands planning efforts for the Kern County Valley Floor Habitat Conservation Plan (HCP) are underway. The draft Kern County Valley Floor HCP includes lands in the northern portion of the TRC ownership area (Kern County 2006).

4. CALIFORNIA CONDOR

4.1 NATURAL HISTORY AND OCCURRENCE

The California condor (*Gymnogyps californianus*) is a member of the family Cathartidae or New World vultures, a family of seven species, including the closely related Andean condor (*Vultur gryphus*) and the sympatric turkey vulture (*Cathartes aura*). Although the family has traditionally been placed in the Order Falconiformes, most contemporary taxonomists believe that New World vultures are members of the Order Ciconiiformes, which includes bitterns, herons, egrets, ibises, and storks (Ligon 1967; Rea 1983; Sibley and Ahlquist 1990; AOU 2006).

California condors are among the largest flying birds in the world. It is the largest of the North America vultures as well as the largest soaring land bird on the North American continent. Adults weigh approximately 10 kilograms (22 pounds) and have a wing span up to 2.9 meters (9.6 feet). They are generally black, with prominent white underwing linings, and with naked skin on the head neck that ranges from gray to shades of yellow, red, and orange. Juveniles and subadults lack the distinct white wing linings and head colorations of adults. By the time individuals are 5 or 6 years of age, they have developed yellow to red heads and distinctive wing linings (Koford 1953; Wilbur 1975; Snyder et al. 1987), although full development of adult wing patterns may not be completed until 7 or 8 years of age (Snyder and Schmitt 2002).

4.1.1 NATURAL HISTORY

The following details of California condor life history are based largely on studies of the wild population prior to 1987, principally those of Carl Koford (1939–1947), Fred Sibley (1965–1969), Sanford Wilbur (1969–1980), and Noel Snyder and his associates (1980–1985). This information can be categorized into nesting, foraging, roosting, and movement components. Mapping of historical and current use of the Covered Lands by California condors is discussed in Section 4.1.5.

Much of the information on California condor biology in the following discussion is derived from the California Condor Recovery Plan (Recovery Plan) (USFWS 1996b). This discussion also incorporates more recent studies of the released populations of the California condor undertaken by Pete Bloom, a scientist with extensive expertise with wild and released California condors on the ranch, and a condor scientific advisory panel ("Condor Panel") that includes Dr. Robert W. Risebrough, a current member of the California Condor Recovery Team and director of the Bodega Bay Institute of Pollution Ecology, and Lloyd Kiff, a former leader of the California Condor Recovery Team.

Distribution: Fossil evidence of the California condor is known from the late Pleistocene (40,000 years before present) and has been found throughout North America. The historical disappearance from most of its range may have been the result of the extinction of the terrestrial mammalian megafauna or depredation by Native Americans (Emslie 1987). In the early 19th

century, the species occurred in California; Oregon; Washington; southern British Columbia, Canada; and Baja California, Mexico. By the mid-20th century, California condors were largely confined to Southern California (Koford 1953; Wilbur 1978a).

California condors were historically found in habitat with requisite populations of ungulates and other large vertebrates (Koford 1953; Snyder and Snyder 2000; Grantham 2007a). As large scavengers, they are evolutionarily adapted for feeding on the carcasses of deer, elk, whales, mastodons, and other large animals (more than 20 kilograms or 44 pounds) more prevalent in the Pleistocene (Emslie 1987). As such, the availability of large dead prey was often unpredictable, leading condors to develop a wide-ranging search behavior. Foraging flights occurred, and continue to occur, over vast areas encompassing hundreds of linear miles of travel each day (Meretsky and Snyder 1992).

Both nest sites and roost sites are generally located in remote areas, such as the Los Padres National Forest in Ventura County. The foraging range for condors in California up until 1987 (when the last wild condor was trapped for captive breeding purposes) spanned a wishbone-shaped mountainous area that generally extended from the Coastal Range (San Benito and Monterey Counties in the north, to Ventura and Los Angeles Counties in the south), to the Transverse Range, including the Tehachapi Mountains of Kern and Los Angeles Counties, and the southern Sierra Nevada Range (Fresno and Madera Counties in the north through Tulare and Kern Counties in the south) (see *Figure 4-1*, *Historical Range of the California Condor in California*). Since the release of captive-bred condors beginning in the late 1990s, and based on analysis conducted by the U.S. Geological Survey (USGS) (Johnson et al. 2010) of condor use in Southern California from 2004 to 2009, condors have begun to use much of this historic range, though not as extensively into the southern Sierras as in the 1980s. See the "Movement" section below for a more thorough discussion of movement of released condors.

Nesting: Researchers had once concluded that California condors did not reach sexual maturity until 6 years of age; however, it is now known that the birds may begin courtship behaviors as early as 4 years (USFWS 1996b). California condors are thought to be monogamous, maintaining stable pair bonds over a period of multiple years (Snyder and Schmitt 2002). Courtship and nest site selection by breeding California condors occur from December through the spring months. The female of a reproductively mature California condor pair normally lays a single egg between late January and early April. Pairs not attending a dependent fledgling from the previous year may attempt breeding annually, but pairs successfully rearing a young typically nest every 2 years (Snyder and Hamber 1985). The egg is incubated by both parents and hatches after approximately 56 days. Both parents share responsibilities for feeding the nestling. Feeding usually occurs daily for the first 2 months, and then gradually diminishes in frequency. At 2 to 3 months of age, the California condor chick leaves the actual nest cavity but remains in the vicinity of the nest, where it is fed by its parents. The chick takes its first flight at about 6 to 7 months of age but may not become fully independent of its parents until the following year. Parent birds occasionally feed a fledgling even after it has begun to make longer flights to foraging grounds.

SOURCE: USFWS 2004

FIGURE 4-1

Historical Range of the California Condor in California

Draft Tehachapi Uplands MSHCP

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California condors nest in various types of rock formations, including crevices, overhung ledges, and potholes, and, more rarely, in cavities in giant sequoia trees (*Sequoiadendron giganteum*) (Snyder et al. 1986). An evaluation of various nest parameters, including types, elevations, compass orientation, entrance sizes, depths, chamber characteristics, substrates, use of nests by other species, accessibility to predators, presence of porches, and proximity to roost perches and sources of human disturbance, indicated that all surveyed California condor nest sites (72 in total) share the following characteristics: The nest cavity must have a ceiling height of at least 38 centimeters at the egg position and must have a fairly level floor with some loose surface substrate, and the area around the nest must be unobstructed for incubating adults and must be a short distance to an accessible landing point (Snyder et al. 1986).

Although apparently suitable California condor nesting habitat still exists over a relatively large portion of the coastal and interior mountains in central and Southern California, the occupied nesting range (prior to the start of the captive-breeding program) was quite limited. After 1910, all recorded nesting sites were located in the Coast, Transverse, and southern Sierra Nevada mountain ranges (Koford 1953; Meretsky and Snyder 1992). All but one of the nest sites used between 1979 and 1986 were in a narrow belt of chaparral and coniferous forested mountains from central Santa Barbara County across northern and central Ventura County to northwestern Los Angeles County. The sites were located within a total area approximately 90 kilometers (56 miles) from west to east and only about 25 kilometers (15 miles) from north to south. The only nest outside this area was located in a giant sequoia in Tulare County in 1984. It is possible that California condors may have been nesting in the latter area for many years, since the nest was only a few miles from another giant sequoia nest that was active in 1951. All recent California condor nest sites were located on public lands within the Los Padres, Angeles, and Sequoia National Forests.

Foraging*:* California condors are obligate scavengers, feeding only on the carcasses of dead animals, primarily medium- to large-sized mammals. Typical foraging behavior includes long-distance reconnaissance flights, lengthy circling flights over a carcass, and hours of waiting at a roost or on the ground near a carcass. Seasonal foraging behavior shifts may result from changes in climatic conditions (e.g., fog, thermal activity, wind intensities, rain) or in response to changes in food availability. California condors maintain wide-ranging foraging patterns throughout the year, an important adaptation for a species that may be subjected to unpredictable food supplies and weather conditions (Meretsky and Snyder 1992). Prior to the arrival of European man, California condor food items within interior California probably included mule deer (*Odocoileus hemionus*), tule elk (*Cervus elaphus nannodes*), pronghorn antelope (*Antilocapra americana*), and smaller mammals. Along the Pacific shore, the diet of the California condor may have included whales, sea lions, and other marine species (Koford 1953; Emslie 1987; USFWS 1984a). Koford (1953) estimated that 95% of the California condor diet consisted of cattle, domestic sheep, ground squirrels (*Spermophilus beecheyi*), mule deer, and horses. Over half of the observations Koford (1953) reported were of California condors feeding on cattle carcasses, and most of those were

calves. California condors appear to feed only 1 to 3 days per week, but the frequency of adult feeding is variable and may show seasonal differences. Condors feed on decaying as well as fresh carcasses and are not known to feed on roadkills (Snyder and Schmitt 2002).

Most California condor foraging occurs in open terrain of foothill grassland and oak savannah habitats and occasionally in open scrub habitat. Although the California condor is not as ungainly on the ground as portrayed in popular literature, it does require fairly open spaces for feeding. This ensures easy take-off and approach and makes finding food easier. As mentioned above, mule deer are a normal food item, yet deer tend to drift toward canyon bottoms to die (Taber and Dasmann 1958), where steep terrain and brush may interfere with California condor foraging.

The principal foraging regions used by California condors from the late 1970s to 1987 were the foothills bordering the southern San Joaquin Valley and axillary valleys in San Luis Obispo, Santa Barbara, Kern, and Tulare Counties. After 1982, most observations of feeding by the small remaining wild population of California condors occurred in the Elkhorn Hills–Cuyama Valley–Carrizo Plain complex and in the foothills of the southern San Joaquin Valley (Meretsky and Snyder 1992). The majority of important foraging areas were on private cattle-grazing lands.

In Kern County, California condors foraged extensively in the foothills adjacent to the northern boundary of Los Padres National Forest, to Reyes Station in the west, to the Pleito Hills west of Interstate 5 (I-5), and eastward throughout much of the region from the Tehachapi Mountains (which include Tejon Ranch) north to the slopes of Cummings Mountain (Studer 1983). This entire region, like the similar foraging country in the Carrizo and Elkhorn Plains, is fairly close to traditional nesting sites (USFWS 1984a).

An important foraging area in Kern County was the foothill rangelands around Glennville. There, California condors roosted primarily on Sequoia National Forest lands in the Greenhorn Mountains and foraged daily in the Cedar Creek and upper Pozo Creek drainages as far west as Blue Mountain and the old Granite Station crossroads south of Woody, California. In Tulare County, California condors foraged extensively through the oak savannah and grassland hill country north from the Kern County border and west of the Sequoia National Forest boundary, including the Tule River Indian Reservation (USFWS 1984a). California condors recently foraged as far north as the Lake Kaweah region, with the White River, Deer Creek, Lake Success, and Yokohl Valley areas being of special importance (USFWS 1984a).

Although these foraging regions have been identified as important to California condors, they should not be considered as all-inclusive. Like most scavenging birds, California condors are opportunistic. During research on the wild birds prior to 1987, California condors were observed feeding on carcasses found in many locations. California condors were known to feed at U.S. Fish and Wildlife Service (USFWS) baiting stations on Tejon Ranch, the Beard Ranch in Glennville, and the Hopper Mountain and Bitter Creek National Wildlife Refuges. The birds may be expected to take advantage of local abundance of food almost anywhere within their normal

range (USFWS 1996b). However, after the mid-1980s, California condors were not reported in many areas of the foraging range they occupied in previous decades, especially north in the Coastal Range to Monterey and San Benito Counties, but also east into the San Gabriel Mountains in Los Angeles County.

The majority of breeding birds forage within 50 to 70 kilometers of their nesting areas, with core foraging areas ranging from 2,500 to 2,800 square kilometers. This wide-ranging foraging pattern may be an important adaptation to unpredictable food supplies (Meretsky and Snyder 1992). They are highly gregarious at feeding sites and somewhat gregarious when conducting foraging flights.

The use and extent of habitats and regions with respect to foraging by condors released into the wild is discussed under the "Movement" section below, as well as in the "Occurrence in the Covered Lands" discussion found in section 4.1.5.

Based on revised habitat modeling conducted by the USFWS for Tejon Ranch, USFWS has determined that the foothill grassland and oak savannahs of Tejon Ranch provide the easiest access to food, protection from predators, and lowest risk of injury during feeding. Based on reviews of extensive vegetation maps developed for this Tehachapi Uplands Multiple Species Habitat Conservation Plan (TU MSHCP) and ground-truthing of ranch vegetation community characteristics, USFWS determined the type and extent of habitat areas that are conducive to successful foraging and feeding on the ranch, given the presence of a consistent supply of carrion. The approach taken by USFWS in this determination is discussed in more detail in Section 4.2.2.2 below ("Loss of Foraging Habitat").

Roosting*:* Depending on weather conditions and the hunger of the bird, a California condor may spend most of its time perched at a roost. California condors often use traditional roosting sites near important foraging grounds (USFWS 1984a). Although California condors usually remain at roosts until mid-morning, and generally return in mid- to late afternoon, it is not unusual for a bird to stay perched throughout the day. While at roosts, California condors devote considerable time to preening and other maintenance activities. Roosts may also serve some social function, as it is common for two or more California condors to roost together and to leave a roost together (USFWS 1984a). There may be adaptive as well as traditional reasons for California condors to continue to occupy a number of widely separated roosts, such as reducing food competition between breeding and non-breeding birds.

Cliff ledges, potholes, and tall conifers, including dead snags, are generally utilized as roost sites in nesting areas. Trees are more often used as night roosts near feeding areas. Although most roost sites are near nesting or foraging areas, scattered roost sites are located throughout the species' range.

Movement: Studies during the 1980s showed that the last California condors remaining in the wild prior to 1987 comprised a single population of birds occupying an area of approximately 2 million hectares (4,942,000 acres). Insofar as could be determined, every California condor in the wild used the entire area and was capable of soaring between any two points within the area in a single day. In addition to changes in climatic conditions, seasonal shifts that were noted seemed to be based generally on food availability. For example, California condors tended to move to the Tehachapi Mountains area during the hunting season when deer gut-piles and abandoned deer carcasses are more abundant. Furthermore, during the calving season in the San Emigdio area of the San Joaquin Valley foraging region, wild California condors were frequently observed feeding on calf carcasses.

Historical data on locations and movements of California condors are limited mainly to those collected between 1982 and 1987, as summarized by Meretsky and Snyder (1992). These data were obtained primarily from radio telemetry studies and the analysis of flight photographs of California condors, by which individual birds could be identified and tracked (Snyder and Johnson 1985; Meretsky and Snyder 1992). Additional data on the movements of GPS-tracked condors between 2002 and 2008 that was compiled and analyzed by Bloom Biological (Dudek 2009) has been superseded. For this TU MSHCP, additional data from 2009 through May 9, 2011, was collected and analyzed. In addition, USGS, in cooperation with USFWS, conducted an analysis of individual California condor use within six management units in Southern California (Hopper Mountain and Bitter Creek National Wildlife Refuges, Wind Wolves Preserve, and three units within Tejon Ranch), based on GPS location data from 2004 through 2009 (Johnson et al. 2010). Relative concentration of use estimates for each management unit for each condor (21 in total) was calculated on an annual basis. The USGS report represents the best available science with respect to relative use patterns by released condors from 2004 to 2009.

Specifically, from 2004 to 2007, the USGS report documented high amounts of condor use of both Hopper and Bitter Creek National Wildlife Refuge management units from the relatively low number of condors with GPS units (two to five) at the time. By 2008 and 2009, the 13–14 condors with GPS units exhibited a more "multimodal distribution," with use concentrated in the Hopper National Wildlife Refuge unit in the south, the Bitter Creek and Wind Wolves units in the northwest, and on the three Tejon Ranch units (Condor Study Area, Tejon Ranch, and Tejon Mountain Village [which equates to the TMV Planning Area]) in the northeast. The average likelihood of occurrence was highest in the Bitter Creek and Hopper National Wildlife Refuges in 2008, and on the Bitter Creek, Hopper, and Condor Study Area (on Tejon Ranch) management units in 2009. In addition, by 2009, every GPS-tagged condor's home range overlapped the three Tejon Ranch units. As noted in the USGS report, released condors appear to be recolonizing historic range areas in California and increasing use of Tejon Ranch. This pattern "… reestablishes traditional condor movement and foraging patterns in Southern California and provides the travel corridor … for recolonization of the northeastern part of the species' historical range" (Johnson et al. 2010, p.1).

The 2002–2008 dataset analyzed in the Draft TU MSHCP (Dudek 2009) is consistent with the results documented in the USGS report. The additional data (2008–2009) that was analyzed in the addendum to Appendix C in the Draft TU MSHCP (Dudek 2009), which was also included in the USGS dataset, was again consistent with the USGS report with respect to condor movements and use patterns within the Southern California region. Finally, the most recent GPS data from 2009 to 2011 included more than twice as many condors (34) with GPS transmitters in the Southern California population than was analyzed from 2002 to 2009 (anywhere from two to 14 condors). The 2009–2011 dataset also shows continuous consistent movement patterns with what was analyzed in the Draft TU MSHCP (Dudek 2009) and in the USGS report. The results of these additional analyses with respect to specific condor use of Tejon Ranch are discussed in Section 4.1.5. The recent analysis of GPS-tracked condors indicates that movement patterns tend to be highly influenced by food availability and nesting/roosting sites. As can be seen in *Figure 4-2, California Condor GPS Locations (Aerial and Ground) in Southern California, April 2002–May 9th, 2011*, the preponderance of points (all behavior groups including flying, perching, and roosting) for GPS-tracked birds from 2002 to 2011 are located on the Hopper Mountain and Bitter Creek National Wildlife Refuges and where historical and current nesting and roosting sites are located (Hopper National Wildlife Refuge), as well as where supplemental feeding stations are located to trap condor for health checkups and transmitter updates. A second area exhibiting high numbers of location points is the Wind Wolves Preserve, where supplemental feeding sites have been occasionally established and where Tule elk populations occur. Tejon Ranch also exhibits a high number of condor GPS location points, primarily associated with foraging and occasional overnight roosting related to hunting and grazing activities on the ranch (historical/traditional roost sites have been limited to the Tunis and Winters Ridge areas of Tejon Ranch, which are preserved as part of the Condor Study Area within the Covered Lands of this TU MSHCP); there are no nest sites on the ranch. *Figure 4-3, California Condor GPS Ground Locations in Southern California, April 2002–May 9, 2011*, depicts perch and roost locations from 2002 to 2011.

Generally, California condors use topography and associated thermal weather patterns for flight. This is best illustrated by observations indicating that almost all flights by California condors, whether covering long distances or not, followed routes over the foothills and mountains bordering the southern San Joaquin Valley but did not pass directly over the flat, highly agricultural floor of the valley. Thus, the usual route for a bird starting from the coastal mountains of Santa Barbara County on its way to foraging grounds in Tulare County was to cross northern Ventura County, pass through the Tehachapi Mountains in southern Kern County (in the vicinity of Tejon Ranch), then turn north to fly closely by Breckenridge Mountain, and enter Tulare County somewhere between the Greenhorn Mountains and Blue Mountain. Where flat, agricultural regions are much less extensive, such as the Cuyama Valley in Santa Barbara and San Luis Obispo Counties, California condors freely passed high above en route to foraging grounds. It has become apparent that California condors are highly dependent on topography, as it dictates prevailing wind patterns (USFWS 1984a).

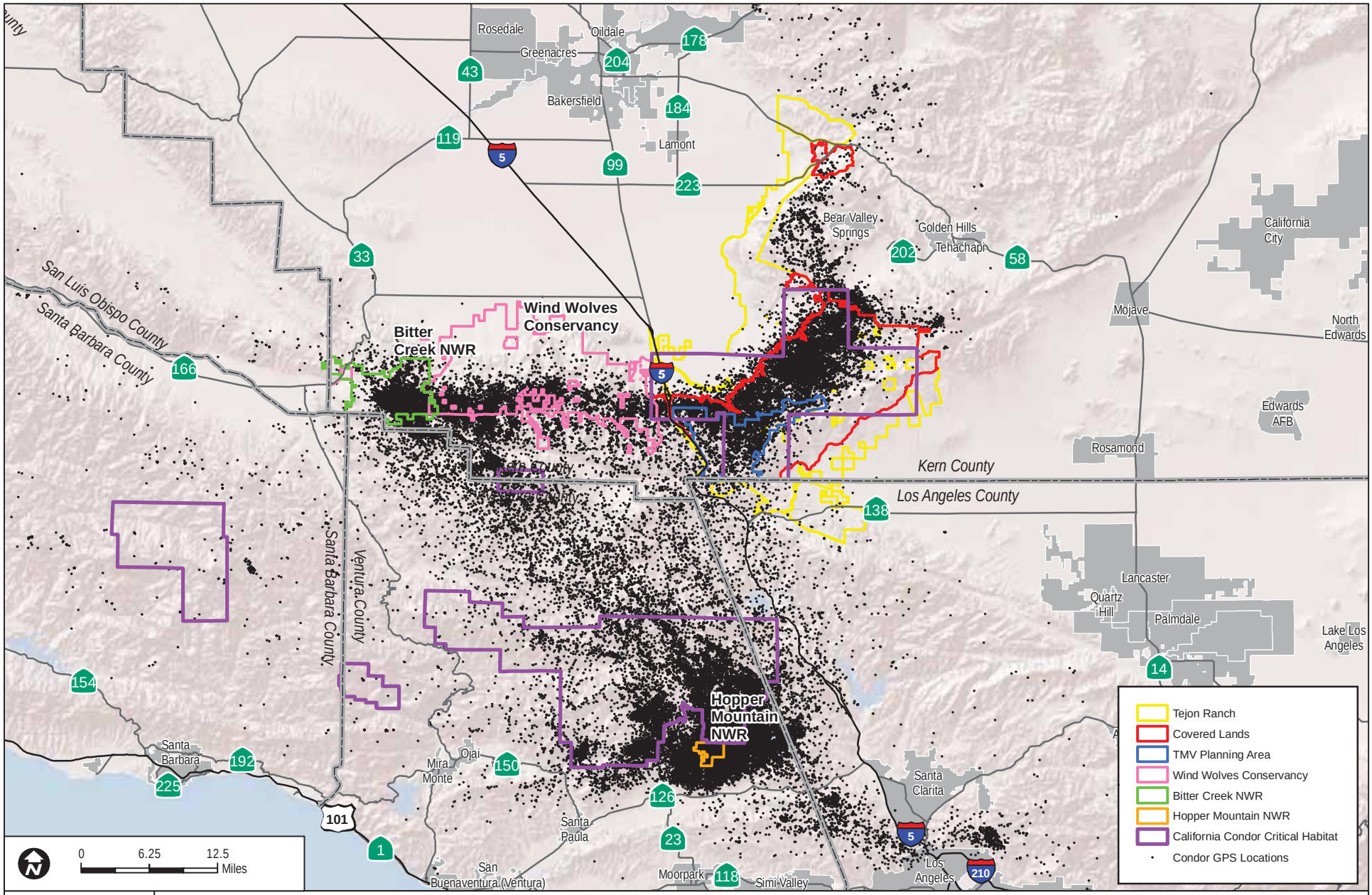
The free-flying condors in the Southern California subpopulation have been recorded flying over communities in the Tehachapi Mountains that have rural residential densities similar to or greater than that proposed for the TMV Project, including Pine Mountain Club and Frazier Park, Piñon Pines, Lake of the Woods, I-5, and even developed portions of Santa Clarita and the northern San Fernando Valley. The USGS condor study (Johnson et al. 2010) includes the utilization distribution maps for 21 individual condors and shows urbanized areas of Santa Clarita in the estimated home ranges of 16 individuals, and the communities of Frazier Park and Pine Mountain Club in the home ranges of 18 individuals. For example, a utilization distribution map from Appendix A of the USGS report shows a condor's estimated home range and high likelihood of occurrence locations, including the Condor Study Area on Tejon Ranch, Bitter Creek National Wildlife Refuge, Hopper National Wildlife Refuge, and the San Gabriel Mountains. This particular individual's home range encompasses highly urbanized areas in the Santa Clarita and San Fernando Valleys and communities with similar densities as approved in the TMV Specific Plan, such as the Frazier Park and Pine Mountain Club areas. The USGS condor study supports the conclusion that condors regularly fly over developed areas and that these areas, based on the GPS data, are part of their estimated home ranges. Such flyovers have resulted in no measurable ill effects with respect to continued condor use of historical and current foraging, roosting, and nesting areas, as evidenced by USFWS GPS tracking data. These data indicate increasing use of these habitat areas since 2002, when USFWS began to use GPS transmitters to track free-flying condors.

4.1.2 STATUS AND REGULATORY HISTORY

Current Status and Critical Habitat

The California condor was listed as an endangered species under Section 4 of the Federal Endangered Species Act (FESA) on March 11, 1967 (32 FR 4001). The species is listed as endangered under the California Endangered Species Act and is also a Fully Protected bird species under California Fish and Game Code Section 3511 (California Fish and Game Code 3511, et seq.).

Critical habitat for the California condor was designated 9 years later on September 24, 1976 (41 FR 41914–41916). Critical habitat is defined in Section 3(5) of FESA as the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical and biological features essential to the conservation of the species and which may require special management considerations or protections; and specific areas outside the geographical area occupied by the species at the time it is listed that are essential for the conservation of the species. According to FESA Section 7(a)(2), "each Federal agency shall in consultation with and with the assistance of the Secretary [of the Interior] insure that any action authorized, funded, or carried out by such agency ... is not likely to … result in the destruction or adverse modification of habitat of such species which is determined by the Secretary ... to be critical."



SOURCE: USFWS 2011; TRC 2007

FIGURE 4-2

California Condor GPS Locations (Aerial and Ground) in Southern California, April 2002 - May 9th, 2011

Draft Tehachapi Uplands MSHCP

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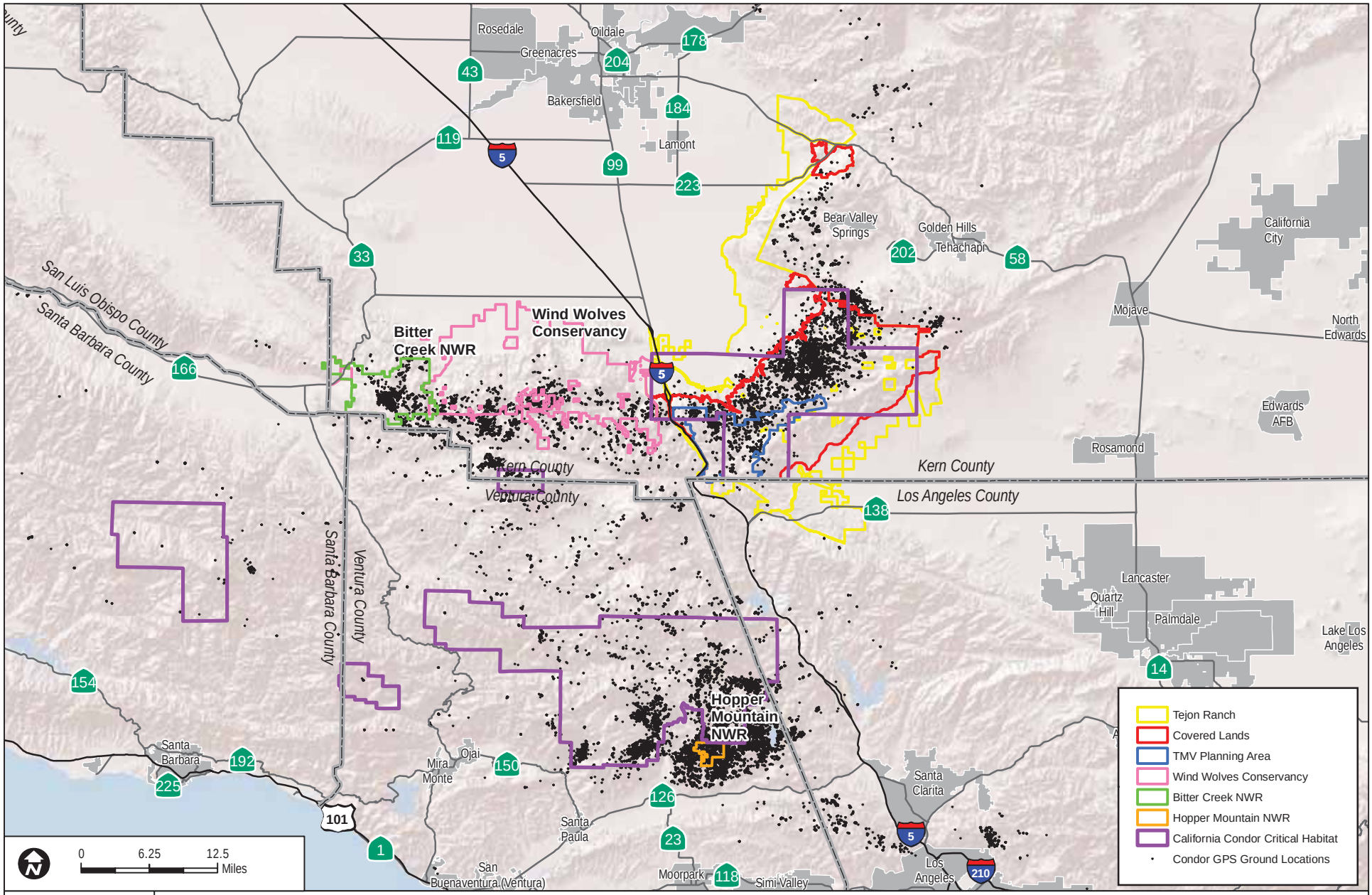

SOURCE: USFWS 2011
USFWS 2011 unpublished data
TRC 2007

FIGURE 4-3

California Condor GPS Ground Locations in Southern California, April 2002 - May 9th, 2011

Draft Tehachapi Uplands MSHCP

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The designated critical habitat consists of nine critical habitat units scattered in the Counties of Tulare, San Luis Obispo, Ventura, Kern, Santa Barbara, and Los Angeles encompassing approximately 605,190 acres (41 FR 41914–41916) (see *Figure 4-4, California Condor Critical Habitat*). The designation predated the identification of "primary constituent elements" essential for the conservation of the listed species currently utilized by USFWS to make critical habitat designations. The 1976 designation identified the conservation values of the nine critical habitat areas according to their contributions to condor nesting, roosting, or foraging functions. The Sespe–Piru, Matilija, Sisquoc–San Rafael, and Hi Mountain–Beartrap habitat units were considered critical for nesting and related year-long activity. The Mt. Pinos and Blue Ridge Condor portions of the designation were considered critical for roosting. Tejon Ranch (within habitat unit #7), other Kern County rangelands, and Tulare County rangelands were considered important to condor feeding.

Tejon Ranch was considered to be important because it contained the only significant feeding habitat remaining in close proximity to the Sespe–Piru condor nesting area. Specifically, as provided for in the critical habitat designation promulgated by USFWS:

> With regard to the California condor, the Sespe-Piru, Matilija, Sisquoc-San Rafael, and Hi Mountain-Beartrap condor areas, as described below, are considered critical for nesting and related year-long activity. The Mt. Pinos and Blue Ridge condor areas, as described below, are considered critical for roosting. The Tejon Ranch, Kern County rangelands, and Tulare County rangelands, as described below, are considered critical for feeding and related activities (41 FR 41914).

The Tejon Ranch critical habitat unit is approximately 134,875 acres in size. Of this, approximately 127,774 acres occur within the boundaries of Tejon Ranch (inclusive of approximately 2,873 acres of private/commercial inholdings not owned by Tejon Ranchcorp [TRC]) and includes the entire 37,000-acre Condor Study Area (see *Figure 4-5, California Condor Critical Habitat within Tejon Ranch*). Approximately 95,068 acres (72%) of the designated critical habitat within Tejon Ranch are within Covered Lands and approximately 19,091 acres are within the TMV Planning Area boundary. USFWS's 1976 designation stated that the Tejon Ranch area primarily provides foraging functions that support condors nesting to the west in the designated Sespe–Piru Area.

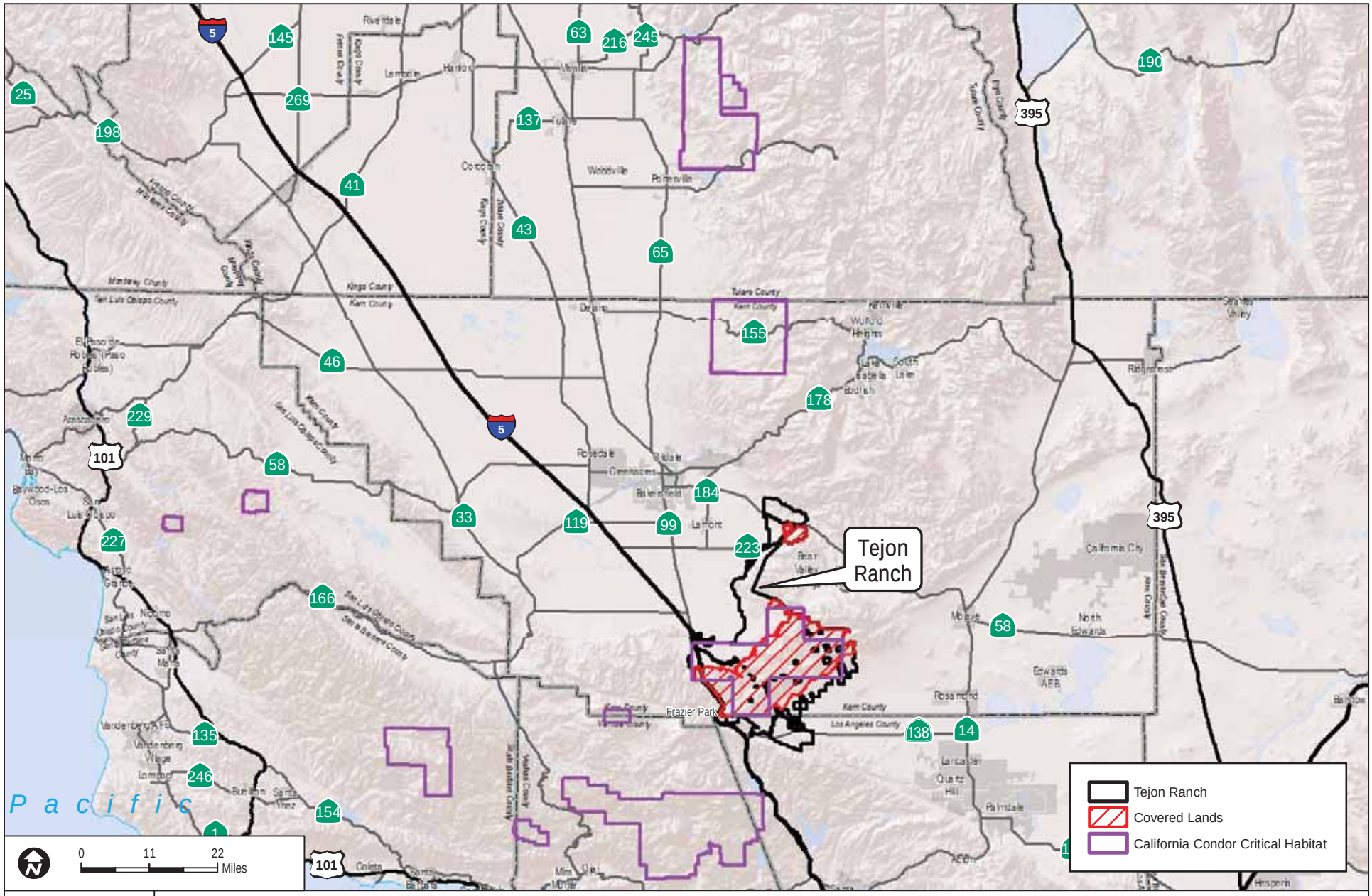
Tejon Ranch is important because it contains the only significant feeding habitat remaining in close proximity to the Sespe–Piru condor nesting area (41 FR 41914–41916). The designated critical habitat on the ranch is largely undeveloped and is principally subject to cattle grazing use. Private, commercial hunting occurs throughout the critical habitat area on a year-round

basis. Electrical and telecommunication towers, and certain other regional infrastructure facilities, currently also exist within the critical habitat boundaries.

Although recently released captive-hatched California condors have no historical bonds to these critical habitat areas (historical data indicates no nesting has ever occurred on Tejon Ranch), the areas contain habitat components known to contribute to the survival of wild California condors. Foraging activity, including opportunistic feeding by condors in transit from the southwest or northeast and by nesting condors or fledglings from the Sespe–Piru nesting area, has historically and continues to occur within the Tejon Ranch critical habitat area. In the past, condors were drawn to feeding and bait sites maintained by USFWS in the vicinity of the Tunis–Winters Ridge. In recent years, condors have been known to feed on pig and other hunting carcasses discarded by commercial hunters. Foraging activity within the Tejon Ranch critical habitat area is facilitated by the occurrence of open fields and low-density tree canopies that allow condors to spot carcasses from the air or to land and access carcasses that may be under tree canopies. Under these conditions, condors can more easily locate food sources than in areas in which tree canopies are heavier and open fields located along ridgelines are less prevalent.

Although the existing critical habitat designation may not meet current standards for designating such habitat, suitable foraging habitat, as determined by USFWS, does exist within the critical habitat boundaries within Covered Lands. As mentioned above, USFWS has further determined the extent of suitable foraging habitat to include areas supporting open grassland and savannahs as the vegetation types that most consistently provide foraging and feeding opportunities to condors. Based on this determination and the vegetation mapping of Tejon Ranch, USFWS was in turn able to determine the spatial extent of suitable foraging habitat for condors on the ranch, particularly within Covered Lands. For a more thorough discussion of the suitable foraging habitat model prepared by USFWS, including within designated critical habitat on the ranch, see Section 4.2.2.2 below.

Reintroduced California condors are expected to benefit significantly from use of the Tunis and Winters Ridge areas of Tejon Ranch (which is preserved as part of the Condor Study Area within the Covered Lands of this TU MSHCP) as well as other preserved habitat areas within Covered Lands. One historical roosting site is located on the northern face of the Tunis–Winters Ridge, approximately 5 miles from any of the proposed Development Activities. The TU MSHCP has been designed to continue to provide for and support condor feeding, foraging, and overflight activities within the ranch without regard to the precise boundaries of the large township blocks that have been used to designate critical habitat for this species.



SOURCE: USFWS 2011

FIGURE 4-4

California Condor Critical Habitat

Draft Tehachapi Uplands MSHCP

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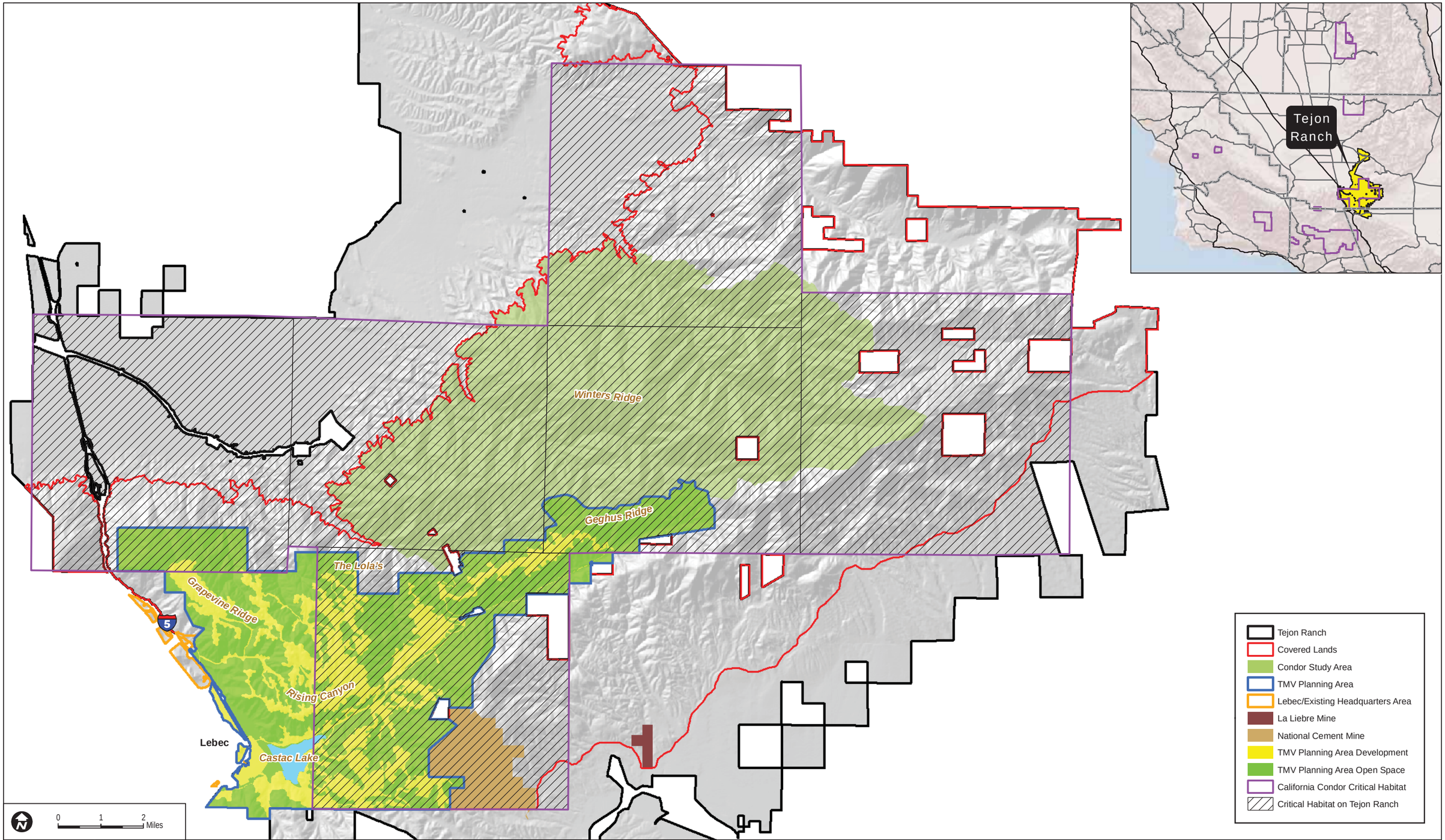

SOURCE: USFWS 2011
TRC 2007

FIGURE 4-5

California Condor Critical Habitat within Tejon Ranch

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As stated above, the ranch contains approximately 130,647 acres of critical habitat, of which 95,068 acres (72%) are within Covered Lands. The TMV Planning Area is located in the southwest corner of the Tejon Ranch portion of designated critical habitat (see *Figure 4-5*). Approximately 19,091 acres (14.5%) of the total amount of Tejon Ranch critical habitat area is located within the TMV Planning Area boundary, of which 13,718 acres is considered suitable foraging habitat. No suitable foraging habitat exists within the Lebec/Existing Headquarters Area. Impacts to critical habitat are discussed in Section 4.2.3, below.

California Condor Recovery Plan

The first California Condor Recovery Plan was approved in 1975 (USFWS 1974). It focused on the reduction of mortality factors through habitat conservation and other relatively non-invasive techniques (e.g., supplemental feeding) since, at that time, it was thought that habitat protection alone would halt the species' decline and prevent its extinction. The Recovery Plan was revised in 1979 (USFWS 1980) and this revision continued the emphasis on habitat conservation. However, as the status of the California condor in the wild continued to decline, it became clear to Federal and state agencies that more intensive management was needed. Consequently, in 1980 an accelerated California Condor Recovery Program was initiated by USFWS and the National Audubon Society involving a variety of intensive "hands-on" techniques, including trapping and radio telemetry, manipulation of wild nesting birds to induce multiple clutches, and a captive breeding program with the ultimate goal of returning captive-reared California condors to the wild. In 1984, the Recovery Plan was again revised (USFWS 1984a) to reflect the new emphasis on these techniques. However, when, by 1986, the California condor decline had continued nearly unabated and the wild population was down to fewer than 10 birds, USFWS and the California Department of Fish and Game (CDFG) decided to remove all remaining wild California condors and place them into the captive breeding program. The last wild California condor was captured in April 1987, and the emphasis of California condor recovery effectively changed at that time from management of the original wild California condor population to captive-breeding and eventual reintroduction of captured and captive-reared birds.

The Recovery Plan was revised yet again in 1996 (USFWS 1996b) to reflect the new demands on the program presented by captive breeding, captive-rearing, and reintroduction to the wild. Reintroduction of captive-reared juvenile California condors began in 1992 and has continued since within the California condor's Southern California range, and has included release of wild birds captured prior to 1992. Captive-reared California condors have also been released into the species' historic range in the Grand Canyon in Arizona as an experimental non-essential population under Section 10(j) of FESA. The releases in Southern California, and subsequent use of Tejon Ranch by released birds as described below, prompted development of this TU MSHCP.

The recovery strategy for the California condor, as stated in the Recovery Plan (USFWS 1996b), focuses upon: (1) increasing reproduction in captivity to provide California condors for release; (2)

releasing California condors to the wild; (3) minimizing California condor mortality factors; (4) maintaining habitat for recovery of populations of the California condor; and (5) implementing California condor information and education programs. USFWS recognizes that reestablished California condor populations in some areas may require continued artificial feeding to supplement natural food resources and/or to protect birds from exposure to contaminated carcasses. The Recovery Plan states that nesting, roosting, and foraging (feeding) functions are the most crucial functions required to achieve and maintain the recovery of the California condor:

> California condors require suitable habitat for nesting, roosting, and foraging. The recent range was restricted to chaparral, coniferous forests, and oak savannah habitats in Southern and central California. The species formerly occurred more widely throughout the southwest and also fed on beaches and large rivers along the Pacific coast. Nest sites are located in cavities in cliffs, in large rock outcrops, or in large trees. Traditional roosting sites are maintained on cliffs or large trees, often near feeding sites. Foraging occurs mostly in grasslands, including potreros within chaparral areas, or in oak savannahs. At present, sufficient remaining habitat exists in California and in southwestern states to support a large number of condors, if density-independent mortality factors, including shooting, lead poisoning, and collisions with man-made objects, can be controlled (USFWS 1996b).

The Tejon Ranch critical habitat area is also discussed in Section 3 of the Recovery Plan, which observes that hunting activities within Tejon Ranch are beneficial to the condor because they provide food sources (carcasses), particularly during the fall months, which can support nesting populations in nearby areas. The Recovery Plan states that the completion of an agreement with the ranch to maintain uses that benefit the condor, such as hunting, is a conservation goal for the species:

> The Tejon Ranch was an important condor feeding area throughout the annual cycle, but especially in the fall, when there is a high intensity of deer hunting on the ranch. A plan should be prepared with the consent and participation of the affected landowner to maintain its value for condors (USFWS 1996b, Subsection 3325, p. 29).

The Recovery Plan also concluded, and current studies have again concluded, that:

> No condor nesting sites occur within the Tejon Ranch critical habitat area. One historical roosting site is located on the northern face of the Tunis–Winters Ridge, approximately [5] miles from

> any of the proposed TMV Project development activities (USFWS 1996b).

The Recovery Plan also noted the origins of what is now termed the Condor Study Area:

> Historically, condors were drawn to feeding and bait sites maintained by the USFWS in the vicinity of the Tunis–Winters Ridge. In recent years, condors have been known to feed on pig and other hunting carcasses discarded by commercial hunters. Foraging activity within the Tejon Ranch critical habitat area is facilitated by the occurrence of open fields and low-density tree canopies that allow condors to spot carcasses from the air. Under these conditions, condors can more easily locate food sources than in areas in which tree canopies are heavier and open fields along ridgelines less prevalent (USFWS 1996).

Conservation and Management

A Condor Recovery Team was formed in 1973 by USFWS to advise the Secretary of the Interior and to design continuing conservation actions for the condor. The team produced the California Condor Recovery Plan (discussed above), which was approved in 1975, with subsequent revisions in 1979, 1984, and 1996.

Despite decades of legal protection and extensive conservation efforts, California condors continued to decline in numbers in the wild throughout the 20th century. To prevent the extinction of the California condor, the decision to capture all remaining wild California condors for safekeeping and genetic security was made by USFWS and the California Fish and Game Commission in late 1985 and completed in 1987. This controversial decision was a dramatic shift from previous conservation efforts to recover the species primarily through habitat protection. It was also determined that captive-rearing was necessary to increase the stock of remaining California condors and to maximize genetic diversity among the new birds.

Following the initiation of captive breeding at the Los Angeles Zoo and San Diego Wild Animal Park, the first two releases of captive-bred California condors took place in the Sespe–Piru California condor critical habitat unit in 1992. The third and fourth releases were conducted approximately 8.1 kilometers (5 miles) north of the Sisquoc–San Rafael California condor critical habitat unit later the same year. Soon after, captive-reared condors were also released into the species' historical range near the Grand Canyon of Arizona as an "experimental nonessential population." By 1998, there were over 50 California condors in the wild. A release site has also been established recently in Baja California, Mexico.

Released California condors have attempted breeding at several locations in the southern Los Padres National Forest in Southern California. Several areas within Tejon Ranch and neighboring mountains function as important local foraging areas near the current primary range of breeding. All free-flying condors wear radio transmitters (many with GPS features) allowing tracking of foraging, roosting, and feeding locations.

Young birds that were initially released early in the program exhibited excessive attractions to humans and artificial structures, particularly power poles. Condors were observed raiding picnic coolers, perching on houses and aerials, and, in one instance, breaking into a summer cabin and ransacking the interior (Grantham, pers. comm. 2008). Acclimation potentially draws condors to areas in which human activities could inadvertently harm individual birds and can modify the species' behavior in the wild. Although condors are naturally curious and often fly near human activity areas, such as the visitor center in the Grand Canyon National Park, such habituation behavior can place the birds at risk of injury (e.g., ingestion of microtrash; collisions with transmission lines, as collisions with overhead wires have led to the loss of a small number of condors; and illegal shootings). The behavioral differences between the young condors that were initially released from the captive breeding program and those that hatched and fledged in the wild have been attributed to the lack of parents or of older, more experienced mentors (Grantham, pers. comm. 2008). Consequently, the earlier-released younger birds were much more tolerant of human presence and even were attracted to human structures, such as houses and decks. To address the behavior of perching on power poles, specific aversion training was conducted on captive condors, which has resulted in a reduction of this behavior (Grantham, pers. comm. 2008). In addition, in an effort to minimize the habituation of recently released condors to human structures (homes, buildings) and activity areas, captive husbandry techniques have been introduced to minimize this behavior. In particular, older, experienced mentor birds are routinely assigned to young condors not raised by their parents. This mentoring of younger, newly released birds has helped to significantly reduce the negative habituation behaviors previously observed in released condors (Grantham, pers. comm. 2008). The most promising results to date have been seen in the releases of parent-reared birds in the Ventana Wilderness Area. The parent-reared birds in the Ventana releases have shown fewer tendencies to approach people than has been seen in other releases. While the performance of these parent-reared birds does not match perfectly the behavior of wild-reared fledglings, the results strongly suggest that parent-rearing, even in zoo environments, can significantly reduce the human-oriented behavior of released birds. Snyder and Schmitt (2002) described the problems presented by the tendency of captive-bred California condors, once released, to become habituated to humans and human structures, and the efforts of USFWS and breeding facilities to remedy this problem.

As previously noted, an additional problem faced by released birds is lead contamination in hunter-killed carcasses. Consequently, supplemental feeding that ensured a food source free of lead and other contaminants was an integral component of the California condor release program during the first several years. However, because the lead ammunition ban provided by the

Ridley-Tree Condor Conservation Act and Tejon Ranch's voluntarily ban on lead ammunition within the condor's range in California is expected to contribute to reduced mortality rates resulting from lead poisoning, and because the now widely ranging foraging patterns of released condors precludes management (through supplemental feeding) by USFWS of condor foraging away from all potentially harmful food sources, including lead-contaminated carcasses, USFWS is no longer using supplemental feeding to the same degree. Currently, USFWS is using supplemental feeding only to facilitate trapping condors during biannual health checks, to replace and/or maintain radio and GPS transmitters, and as a food source for recently released, captive-bred juvenile condors that do not have parents to feed them.

Tejon Ranch History

TRC has a long history of assisting with efforts to save the California condor in the years prior to the species' removal from the wild in 1987. Before official protection efforts began, ranch managers provided warnings to hunters and other ranch visitors, and established rules and regulations for such persons admonishing them not to shoot large birds and not to engage in activities that put California condors at risk.

In cooperation with the National Audubon Society, TRC sponsored California condor and raptor censuses, allowing numerous volunteer observers at strategic locations on Tejon Ranch. Scientists studying the California condor used Tejon Ranch as their "laboratory," and Tejon Ranch was made available to USFWS and other persons interested in the species' recovery. Tejon Ranch staff assisted with efforts to locate and rescue injured or lost California condors. Some of the last California condors removed from the wild were taken at a capture site provided on Tejon Ranch.

4.1.3 POPULATION TRENDS

The fossil record shows that California condors once occupied much of the area that comprises the southern United States and into Mexico and British Columbia; however, coincident with the extinction of numerous large mammals, the species' distribution began to shrink. By the time of the arrival of Europeans in western North America, California condors occurred only in a narrow Pacific coastal strip from British Columbia, Canada, to Baja California Norte, Mexico (Koford 1953; Wilbur 1978a). California condors were observed until the mid-1800s in the northern portion of the Pacific coast region (Columbia River Gorge) and until the early 1930s in the southern extreme (northern Baja California) (Koford 1953; Wilbur 1973; Wilbur and Kiff 1980).

Despite intensive conservation efforts, the wild California condor population declined steadily until 1987, when the last free-flying California condors were captured. During the 1980s, captive California condor flocks were established at the San Diego Wild Animal Park and the Los Angeles Zoo, and the first successful captive breeding was accomplished at the former facility in

1988. Following several years of increasingly successful captive breeding, captive-produced California condors were first released back to the wild in early 1992.

California condor censusing through the years has varied in intensity and accuracy. This has led to conflicting estimates of historical abundance, but all such censuses and estimates have indicated an ever-declining California condor population. Koford (1953) estimated a population of about 60 individuals in the late 1930s through the mid-1940s, apparently based on observed flock size. A field study by Eben and McMillan in the early 1960s suggested a population of about 40 individuals, again based in part on the validity of Koford's estimates of flock size (Miller et al. 1965). In 1965, CDFG began an annual October California condor survey (Mallette and Borneman 1966), which continued for 16 years. This effort typically involved a 2-day simultaneous observation and count of California condors at prominent observation points in areas of known concentration. Interpretation of the results of these surveys was made difficult by variations from year to year in weather conditions, number of observers, and other factors, but the results supported an estimate of 50 to 60 California condors in the late 1960s (Sibley 1969). Wilbur (1980) continued the survey efforts into the 1970s and concurred with the interpretations of the earlier October surveys. He further estimated that by 1978 the population had dropped to 25 to 30 individuals.

Snyder and Johnson (1985) later reassessed the earlier California condor population estimates of Koford (1953) and Miller et al. (1965) and concluded that they may have underestimated the size of the population by a factor of two or three. Regardless of the actual number of birds, however, the trend toward extinction of the wild California condor population was linear and unrelenting. In 1981, USFWS, in cooperation with California Polytechnic State University, San Luis Obispo, began census efforts based on individual identifications of California condors by photographing flight silhouettes (Snyder and Johnson 1985). Minimum summer counts from these photocensusing efforts showed a steady decline from an estimated minimum of 21 wild California condors in 1982, to 19 individuals in 1983, 15 individuals in 1984, and nine individuals in 1985. Although the overall California condor population increased slightly after 1982 as a result of double clutching, the wild population continued to decline. By the end of 1986, all but two California condors had been captured and placed into the captive breeding program. On April 19, 1987, the last wild California condor was captured and taken to the San Diego Wild Animal Park.

Based on the successes of the captive breeding program, the ability of released condors to once again breed in the wild, and the increase in the numbers of captive condors being released, and notwithstanding the fact that mortality due to lead poisoning continues to occur with released birds, the population of California condors has been steadily increasing. As of November 30, 2011, there are 391 California condors in the world population, including 182 in captivity and 209 in the wild (USFWS 2011a). The wild population includes 113 in central and Southern California (40 in this sub-population); 23 birds in Baja California, Mexico; and 73 in Arizona.

4.1.4 REASONS FOR DECLINE AND ONGOING THREATS

Causes of the decline of the California condor population have probably been numerous and variable through time. Historically, relatively few dead California condors have been found, and definitive conclusions on the causes of death were made in only a small portion of these cases (Miller et al. 1965; Wilbur 1978a; Snyder and Snyder 1989).

Lead poisoning is thought to be a major cause of mortality that resulted in the decline of the California condor (Janssen et al. 1986; Bloom et al. 1989; Pattee et al. 1990; Snyder and Snyder 2000; Cade 2007; Grantham 2007b; Hall et al. 2007). Reintroduced birds also suffer from lead poisoning (Meretsky et al. 2000, 2001; Cade 2007; Grantham 2007b; Hall et al. 2007; Hunt et al. 2007; Sullivan et al. 2007; Woods et al. 2007). Lead poisoning is considered to be the most significant current cause of condor mortality (Grantham 2007a, 2007b; Hall et al. 2007).

High lead levels, presumably obtained from the ingestion of fragments of lead bullets in shot mammal carcasses, may be a pervasive problem throughout the historical foraging range of the California condor. For example, Bloom et al. (1989) and Pattee et al. (1990) found elevated levels of lead in one-third of 162 golden eagle blood samples taken in the range of the California condor in 1985 to 1986, and Wiemeyer et al. (1988) concluded that lead exposure was the major factor having an adverse impact on the wild California condor population from 1982 to 1986.

In spring 2007, TRC announced a total ban on the use of lead shot and bullets for hunting purposes on the ranch that took effect on January 1, 2008. In cooperation with USFWS, TRC also voluntarily implemented a 30-day ban on all hunting on the ranch from June 9, 2008, to July 9, 2008, as a result of reported elevated lead levels discovered by USFWS in the Southern California population of condors. California subsequently enacted the Ridley-Tree Condor Conservation Act, which banned the use of lead ammunition within the state range of the California condor effective July 1, 2008.

Microtrash, including small bits of plastic and metal such as bottle caps, pop-tops, PVC pipe fragments, and broken glass that are inadvertently fed to hatchlings by their parents, is an important factor affecting condor breeding success (Grantham 2007b; Mee et al. 2007). Because bone chips are a normal part of a growing condor's diet and provide an important source of calcium to mineralize growing bones, it is generally assumed that adult condors inadvertently feed bits of microtrash to young believing the hard pieces to be bone (Houston et al. 2007). Although the digestive systems of young condors might be well adapted to digesting bone fragments, they are not suited to handling plastic, metal, and glass. Other possible reasons for microtrash ingestion include aiding in the production of food pellets that contain other indigestible items, such as hair and horns from carcasses, and possibly as a mistaken source of short-term energy when carrion sources are scarce (Houston et al. 2007). Microtrash may come from several possible sources, including roadsides, camp sites, and scattered refuse piles.

Microtrash killed at least five wild-hatched California condor chicks between 2001 and 2006 (Mee et al. 2007).

As previously discussed, another challenge to recovery of the species is the potential for condors to be attracted to human activity and artificial structures. Maintaining California condors in the wild remains the principal conservation objective and will continue to require advances in training birds prior to release to avoid interactions with humans and artificial structures. Captive husbandry techniques have already been modified to reduce these effects, resulting in a substantial reduction of the negative habituation and acclimation behaviors previously observed in released condors (Grantham, pers. comm. 2008).

Other causes of mortality in reintroduced birds have included collisions with power lines, drowning, anti-freeze poisoning, and shootings. Aversion training methods have been applied that eventually led to reductions in the tendency of released condors to land on power poles (Grantham, pers. comm. 2008). Currently, the California Condor Recovery Team believes that lead poisoning, collisions with powerlines, microtrash, and shooting will remain the principal causes of California condor mortality as the species' population recovers.

4.1.5 OCCURRENCE IN THE COVERED LANDS

Historical California Condor Use of the Ranch (1850–1987)

California condors were observed almost continuously in the ranch area between 1850 and 1987 (Koford 1953). Since 1935, the number of California condors occurring in Kern County, or at least the size of flocks there, had shown some increase. As a natural connection between the coastal mountains habitat to the west in Ventura and Santa Barbara Counties to historical nesting and roosting areas in the southern Sierra Nevada, Tejon Ranch has always been considered part of the California condor's range in Kern County. Although prehistoric condors possibly made use of San Joaquin Valley floor habitat, California condors today appear to largely avoid the Central Valley floor for foraging, probably due to lack of thermal activity as well as food sources (limited hunting as a source of game animal carcasses, gut piles, etc.) (Koford 1953; Wilbur 1978a). Between 1982 and 1987, no condors with transmitters were known to cross the San Joaquin Valley.

Although most portions of the California condor foraging range received some use by the species throughout the year during the period of 1850 to 1987, the intensity of use varied seasonally in accord with patterns of food availability (Meretsky and Snyder 1992). The habits of individual California condors may also have played a role. The fall peak in California condor use of the Tehachapi Mountains zone, which includes portions of Tejon Ranch, appeared, at least in part, to be correlated with deer and other mammal hunting, with many records of condors feeding on deer gut piles or on deer carcasses. A flock of 43 California condors reported in November of 1947 by Perry Sprague was the largest group observed at Tejon Ranch. Antonio Aroujo, head

vaquero of the ranch for many years, believed that the number of California condors had increased there (Koford 1953) before the overall population declined.

In the mid-1980s, areas of Tejon Ranch within the Condor Study Area were used by the California Condor Recovery Team as supplemental feeding/baiting areas (see *Figure 4-6, Historical Sightings (through 1982) California Condor Use Data*). California condor trapping sites, where both pit traps and cannon netting were employed, were also located in these areas. Carcasses were placed in these areas for supplemental feeding, and after California condors were observed feeding and feeling comfortable in these areas, they were stocked with carcasses to facilitate trapping.

Tejon Ranch was historically a regular California condor foraging area. Most foraging occurred along the ridgelines and grasslands above the San Joaquin Valley floor, in the portion of Tejon Ranch described in this TU MSHCP as the Tunis and Winters Ridge area and the Tehachapi Mountain Uplands (see *Figure 1-4, Historical Range of the California Condor in California*). The ranch was also part of a major flyway for California condors moving between Ventura County and the Sierra foothills. In addition to foraging, California condors historically roosted on Winters Ridge, where patches of conifers occur in relatively undisturbed areas (USFWS 1974, 1984a). California condors did not frequent the southern slopes of the Tehachapi Mountains, perhaps because of the predominantly downslope wind patterns that are not conducive to their flight or because of limited carcass availability. The Antelope Valley floor to the south experienced very little use by California condors.

Recent Use of Tejon Ranch by California Condors (1992–Present)

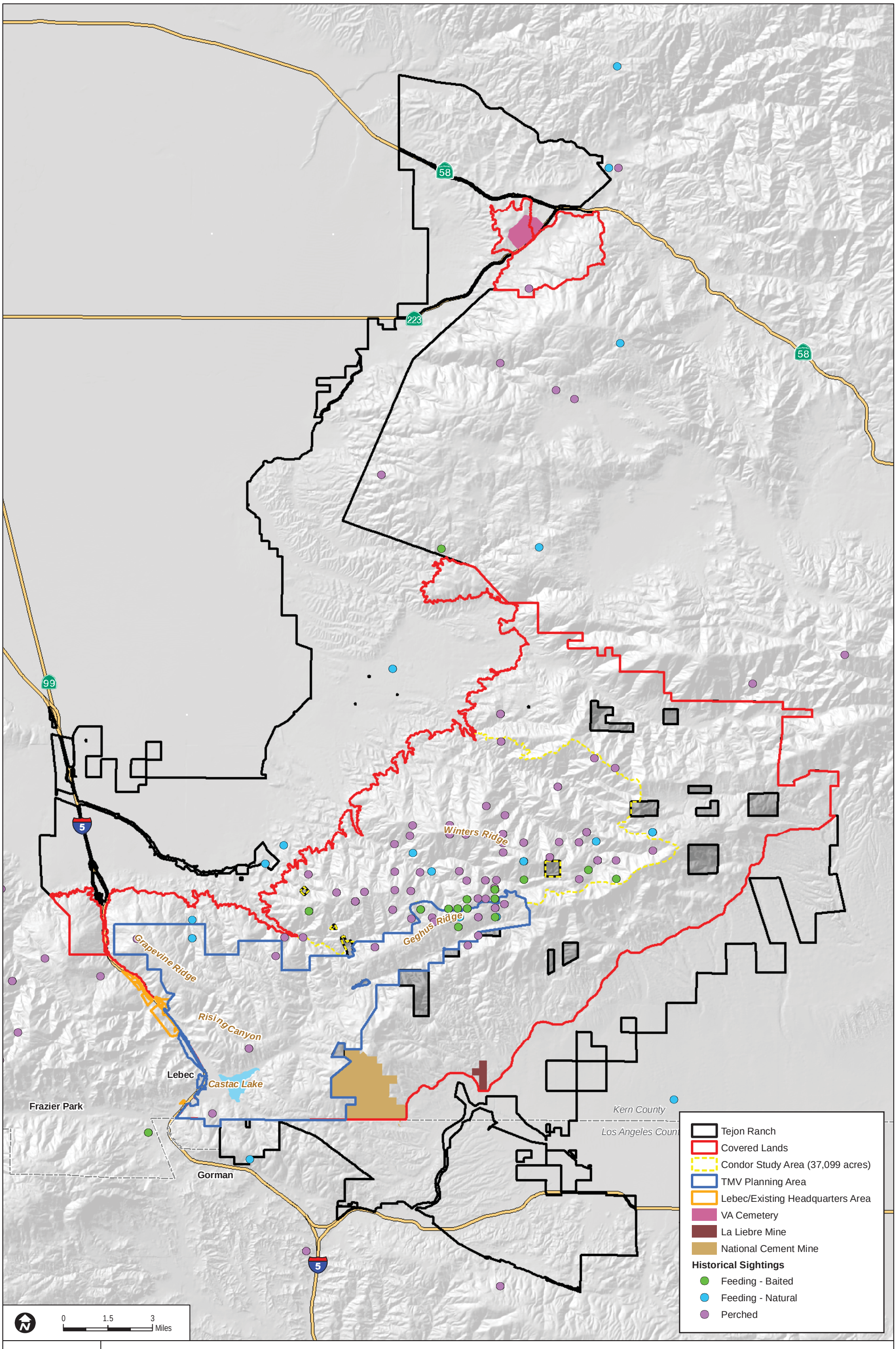
Flights by reintroduced California condors into the Tehachapi Mountains of the ranch and into the southern Sierra Nevada Mountains have occurred since 1996 (USFWS 2002a). From areas adjacent to the ranch, the California Condor Recovery Team has detected telemetry signals indicating that reintroduced California condors were using portions of the ranch. The first time signals were received from reintroduced California condors at the ranch was in late May 1996. California condor use of the ranch has continued and increased since 1996, primarily in the Condor Study Area. In 1998, the California Condor Recovery Team observed California condors using Stallion Springs in the Tehachapi Mountains. The birds would leave this area and fly to the ranch, then after a few hours would return to Stallion Springs with full crops.

While condors utilize various areas within the ranch, the predominant use was historically noted to occur within the Condor Study Area where a historical roost site (Winters Ridge) occurs and in which much of the hunting on the ranch occurred and continues to occur (see *Figure 4-6*). However, beginning in early to mid-2008, and as described in the USGS report, more condors were being released into the wild by 2008 and condor use of the ranch expanded, although the Condor Study Area continued to receive much of the use by condors at that time (see *Figure 4-7, California Condor GPS Locations (Aerial and Ground) in Southern California, January 1,*

2008–August 31, 2009). According to the USGS report, the Condor Study Area was among the three land area units (along with Hopper and Bitter Creek) that received the highest "average likelihood of occurrence" by condors in 2009 and had a higher average likelihood of occurrence than the two other Tejon Ranch land area units. The availability of feral pig carcasses due to increasing year-round pig eradication activities throughout the ranch, as well as continued ranching and hunting activities, may also have contributed to this increased use on the ranch.

As evidenced by the 2010–2011 GPS dataset, additional areas of the ranch continue to be utilized by condors, with a large amount of the use noted as still occurring within the Condor Study Area (see *Figure 4-8, California Condor GPS Locations (Aerial and Ground) in Southern California, January 1st, 2010–May 9, 2011*). As noted in the USGS report, an increasing number of released condors appear to be recolonizing former areas of their historic range; are nesting, roosting, and foraging in the same relative historic locations; and are reestablishing traditional movement and foraging patterns in Southern California.

On Tejon Ranch, condors feed on both hunter-killed mammals and naturally deceased livestock. In particular, because the hunting of wild pigs essentially occurs year-round, gut piles and discarded carcasses of pigs, as well as other hunted animals, serve as primary attractants to condors on the ranch. No condors have attempted to nest within Tejon Ranch or anywhere within the Tehachapi Mountains, likely due to the relative lack of suitable nesting habitat in this area. In addition, no historical, traditional roost sites occur within the TMV Planning Area. The only known traditional condor roost site is located on the northeast face of Winters Ridge, within the Condor Study Area.



SOURCE: USFWS 2011

FIGURE 4-6

Historical Sightings (through 1982) California Condor Use Data

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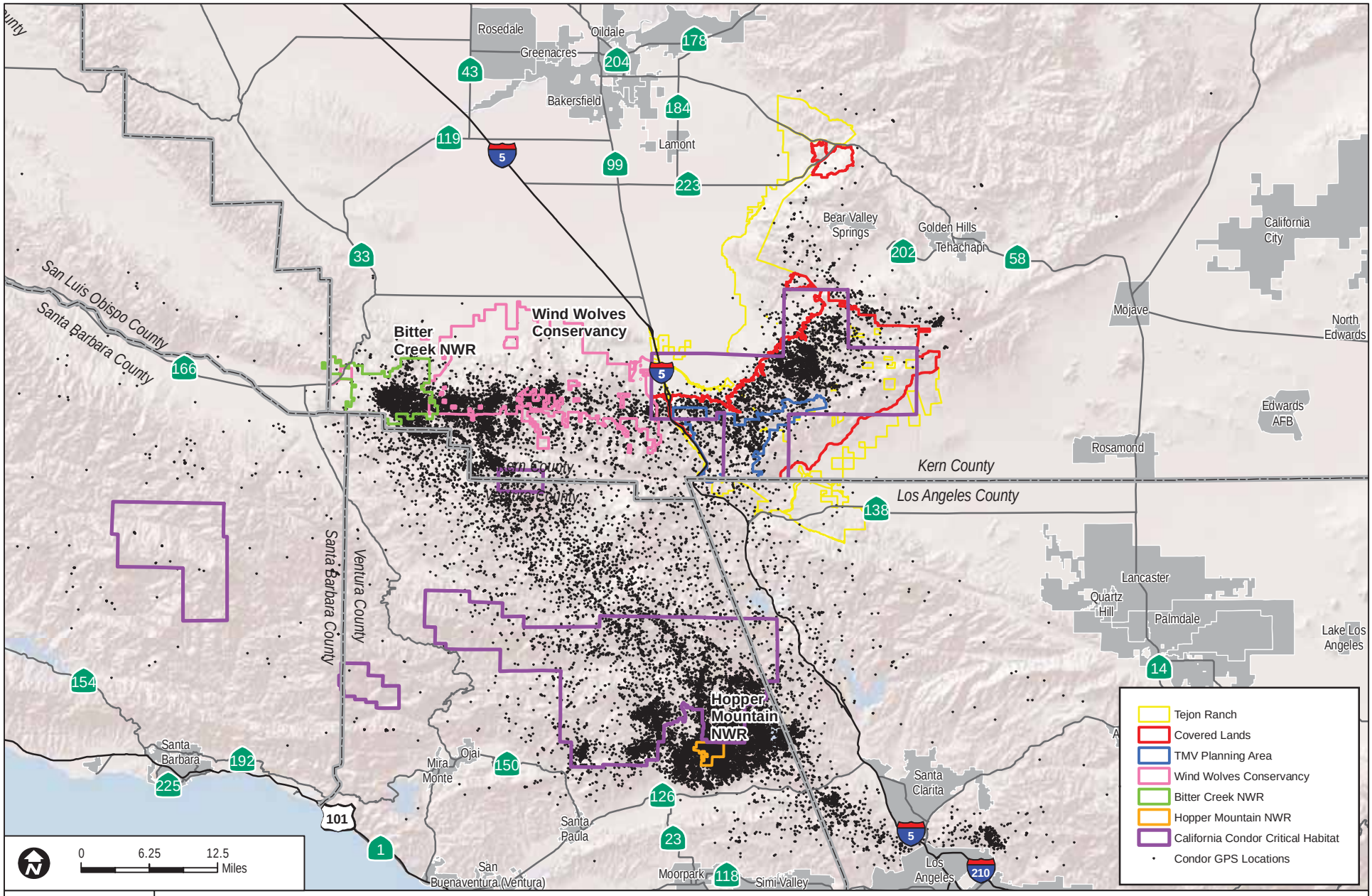

SOURCE: USFWS 2011; TRC 2007

FIGURE 4-7

California Condor GPS Locations (Aerial and Ground) in Southern California, January 1st, 2008 - August 31st, 2009

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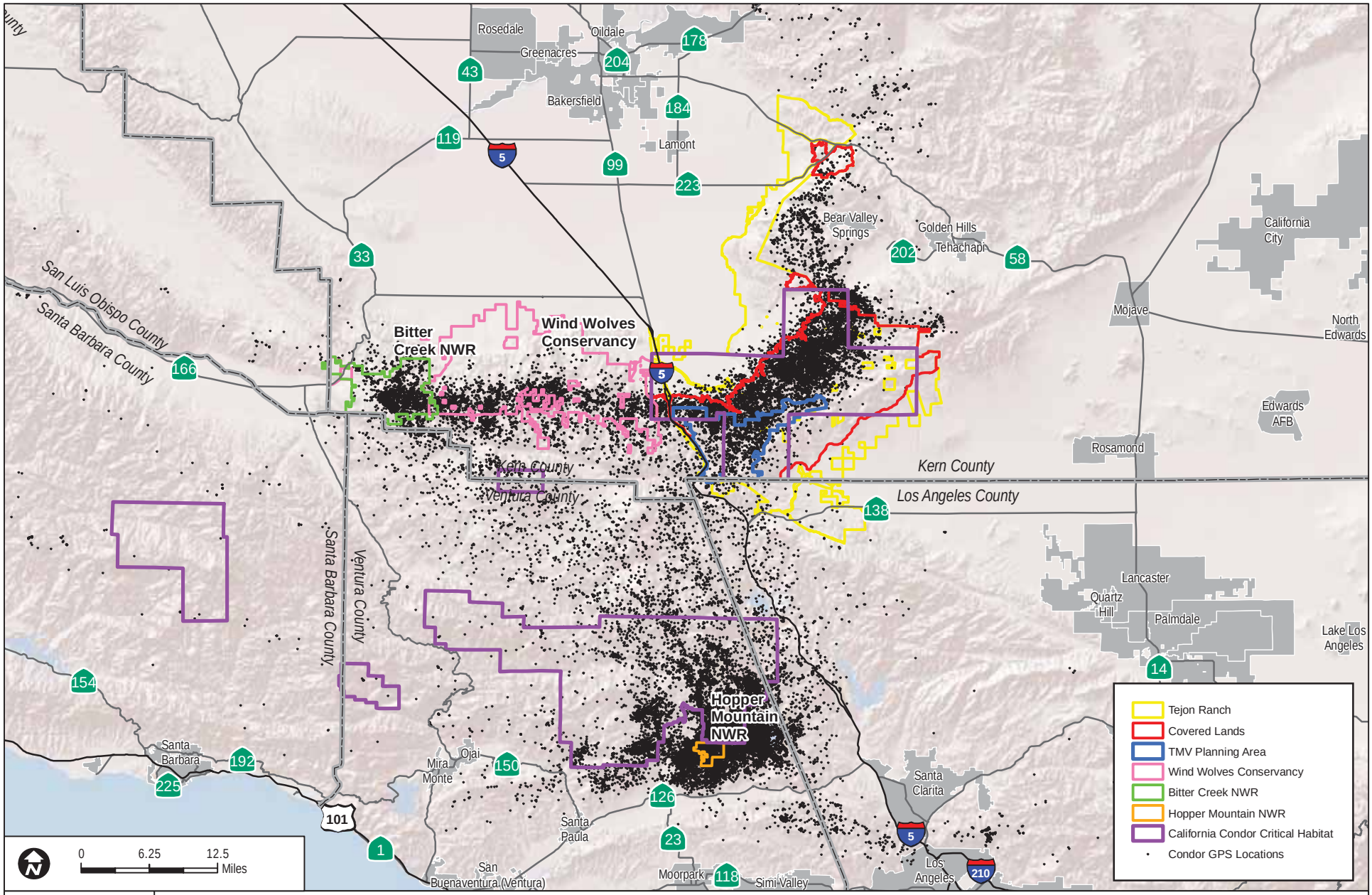

SOURCE: USFWS 2011; USFWS 2011 unpublished data; TRC 2007

FIGURE 4-8

California Condor GPS Locations (Aerial and Ground) in Southern California, January 1st, 2010 - May 9th, 2011

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4.2 POTENTIAL BIOLOGICAL IMPACTS/TAKE ASSESSMENT

In assessing the potential effects of the Covered Activities on the California condor, USFWS looked at (and advised TRC of) those factors that contributed to the species' decline and those factors that have become evident since California condors were re-released into the wild in 1992 to determine if and to what extent any of those factors may result from the Covered Activities. Because few dead California condors have been found, definitive conclusions about the causes of death have been difficult to make. However, as previously noted, the California Condor Recovery Team believes that collisions with powerlines, lead poisoning, ingestion of microtrash, and shooting will remain the principal causes of injury and mortality as the species recovers. In discussing the preparation of the TU MSHCP with USFWS, TRC took into account these potential mortality factors, and other factors potentially affecting the California condor, such as habitat loss. The objective of USFWS was to assist TRC with defining boundaries (topographic and activity-related) within which the effects of the proposed Covered Activities on California condors would be avoided or minimized.

In addition to working with USFWS, TRC worked with three California condor experts, Mr. Peter Bloom, Dr. Robert Risebrough, and Mr. Lloyd Kiff, who were retained to study California condor occurrences and threats, particularly related to the proposed TMV Project, which is the primary Covered Activity potentially affecting California condors. Mr. Bloom personally trapped and marked all of the original wild free-flying California condors or brought them directly into captivity. While working for the National Audubon Society, he also conducted extensive ethological observations in the field, including on Tejon Ranch, on behalf of CDFG and USFWS (including the California Condor Recovery Program). Dr. Risebrough is a current member of the California Condor Recovery Team and director of the Bodega Bay Institute of Pollution Ecology. Dr. Risebrough is an acknowledged expert on contaminant ecology with particular expertise on mortality and diseases of condors caused by ingestion of, or exposure to, various contaminants. Mr. Kiff has over 30 years of experience working with the conservation of the California condor on behalf of CDFG and USFWS, including the California Condor Recovery Team. Mr. Kiff is a former member and past Chairman of the California Condor Recovery Team. Through review of proposed development plans and USFWS historical and current data on condor movements, and from field visits to Tejon Ranch, all three assessed the extent to which the TMV Project could adversely impact condors, and identified a range of development design elements and management measures to avoid, minimize, and/or mitigate identified impacts, which have influenced the measures incorporated in this TU MSHCP.

4.2.1 IMPACTS ON CALIFORNIA CONDOR

4.2.1.1 PLAN-WIDE ACTIVITIES

This section addresses potential impacts on California condors posed by covered Plan-Wide Activities described in *Section 2*, *Plan Description and Activities Covered by Permit*:

(1) Livestock grazing and range management activities:

Livestock grazing and range management activities have been a part of ranchwide activities for many decades. Current and future livestock grazing and related range management activities on the Covered Lands are expected to have continuing positive effects on California condors. These activities have been acknowledged to be beneficial to California condors because they provide a necessary source of carrion for condors to feed on (USFWS 1974, 1996b; Wilbur 1978b). The continuation of these practices on Tejon Ranch is especially important for condors because the ranch historically has been a focal point for condors, particularly in the fall (probably due to the consistent availability of food). Grazing also is likely beneficial to California condors because grazing reduces cover of non-native grasses and opens habitat for foraging. Additionally, grazing reduces fuel loads and the risk of catastrophic wildfire. Grazing levels are expected to continue consistent with current practices.

(2) Fuel management:

Fuel management practices consist primarily of grazing. For the reasons described above for livestock grazing, fuel management through grazing is expected to continue to benefit condors by maintaining open habitat. Fuel management activities involving irrigation and/or vegetation clearing around existing structures are not expected to benefit the California condor because they would occur within the 0.5-mile zone of indirect impacts to the species.

(3) Film production:

Filming, like any organized activity on the ranch, could become an attractive nuisance if film crews feed California condors, leave discarded food, or do not pick up microtrash. As previously noted, ingestion of microtrash by adult condors can lead to injury and/or mortality of chicks. Qualified TRC employees, such as the USFWS-approved Tejon Staff Biologist, or personnel are assigned to accompany all film crews and enforce rules prohibiting such behavior. Film shoots that include explosives or other loud noises can adversely affect condors that may be roosting or feeding in the vicinity. Explosions (louder than gunshots) or other abnormally loud noises are prohibited throughout the TU MSHCP Mitigation Lands unless the USFWS-approved Tejon Staff Biologist, in consultation with USFWS, determines that no condors are present. Explosions (louder than gunshots) are prohibited in the Condor Study Area. Effects of such organized activities would be monitored and minimized or avoided throughout the open space, and there would be no permanent structures or production facilities. The Ranchwide Agreement requires that a ranchwide management plan that includes best management practices for filming activities be prepared and followed by TRC. Per the terms of the Ranchwide Agreement, an Interim Ranch-Wide Management Plan (RWMP) is currently in place that requires pre-disturbance review and restoration of the site to pre-disturbance conditions, for example). This TU MSHCP further requires USFWS review and approval of the RWMP during the term of the permit. For the reasons described above, filming activities are not expected to have an adverse effect on condors.

(4) Recreation:

Recreational activities covered by this TU MSHCP (see Section 2.2.1) could have an effect on California condors if they intrude into areas where the species is roosting, foraging, or feeding (on the ground). Human actions that cause the birds to fly off of roosts or carcasses can interfere with their natural behavior. However, the level of potential human impact on condors will be low and similar to what has occurred in other areas within the condor's historic range in association with passive recreation. For example, people recreating in the conservation lands could intersect with a feeding group of condors, which may or may not result in condors abandoning a carcass, depending on the distance and activities involved. Given the large size of the conservation lands; the random, irregular occurrence of carrion that condors use for food; the low-impact, passive recreation activities proposed; and the active monitoring and regulation of those activities by TRC staff or Tejon Ranch Conservancy (Conservancy) docents, as applicable, as well as restrictions on the location and types of organized events, the TU MSHCP Mitigation Lands and conservation lands are expected to continue to provide foraging, feeding, and roosting opportunities for condors. Further, the private recreation activities are limited by the requirement to preserve conservation values pursuant to this TU MSHCP and to follow best management practices required to be developed through the Ranchwide Agreement as part of the RWMP as set forth in Section 2.2.1. Public recreation activities will be governed by a Public Access Plan in areas managed by the Conservancy, subject to USFWS review and approval for consistency with the TU MSHCP and FESA. Public access in the TMV Planning Area will be limited to use by TMV Project residents and guests and by the requirement to preserve conservation values pursuant to this TU MSCHP as set forth in Section 2.2.1, except as areas may be managed by the Conservancy and incorporated into the Public Access Plan. Per the terms of the Ranchwide Agreement, an Interim RWMP is currently in place that includes an Interim Public Access Plan that provides for docent-led public tours and that requires pre-activity surveys prior to any ground-disturbing activities. For the reasons described above, recreation is not expected to have an adverse effect on condors.

(5) Farming and irrigation systems:

A few small agricultural areas exist within the Covered Lands (e.g., small vineyards and an orchard near Castac Lake). Most of TRC's farming operations are located on the San Joaquin Valley floor and are not in the Covered Lands. Previously authorized diversions from several creeks on Tejon Ranch (three are in or adjacent to the Covered Lands) support more extensive agricultural activities on the San Joaquin Valley floor outside the Covered Lands. The principal risk to California condors from farming operations would be if farm chemicals were left in the open unattended, but that is prohibited by applicable requirements for managing pesticides. Farming activities have been a part of Tejon Ranch operations for decades, and there is no evidence of any harm or mortality to condors as a result of farming and irrigation operations. Further, as discussed in *Section 2* of this TU MSHCP, these activities are subject to the farming

and water diversion best management practices in the Interim RWMP, as required by the Ranchwide Agreement. These best management practices require the use of crop planning, as well as biological and cultural management techniques, to reduce the need for pesticides. The farming best management practices also require selection of plants that match climate conditions and that are suited for the available water supply, and installation of water-usage-reducing irrigation systems, such as drip irrigation and adjusted irrigation levels. Other water diversion activities are limited by the Ranchwide Agreement and this TU MSHCP as set forth in Section 2.2.1, so that there will be no significant expansion of groundwater extraction practices as of June 17, 2008, the date of the Ranchwide Agreement, and no major alterations or improvements of the ranch surface for water storage, including water storage in underground aquifers, would occur. For the reasons described above, farming and irrigation systems are not expected to have an adverse effect on condors.

(6) Roads:

Two paved roads of significant length exist entirely or partly within Covered Lands: One provides access to the California Aqueduct for the California Department of Water Resources, and the other provides access to the National Cement plant. Throughout the ranch, unimproved roads exist for access for fire protection, security, ranching activities, and hunting. These are typically dirt roads, and their use and maintenance are not likely to have a negative effect on California condors because similar uses and maintenance have not been shown to have negative impacts on California condors in this or other areas in the species' range. New roads are limited by the terms of this TU MSHCP as set forth in Section 2.2.1. Road maintenance activities are subject to best management practices related to maintenance for fire prevention, maintenance of berms on dirt roads to handle minor stormwater flows, and dust control management activities on dirt roads. Further, to protect the conservation values, under the Interim RWMP, proposed new or relocated roads must first be evaluated, including a site assessment to avoid impacts to sensitive resources. Construction must be planned to reduce impacts on sensitive natural resources and limited to a minimal area. Road use and maintenance have not been observed to be a source of impacts to California condors historically on the ranch or elsewhere within the range of the condor. However, microtrash can inadvertently be left by individuals, motorists, or work crews involved in repair or maintenance activities. As previously noted, ingestion of microtrash by adult condors can lead to injury and/or mortality of chicks. The TU MSHCP includes measures to minimize the risk of microtrash through education and other measures.

(7) Utilities:

Various utilities, including antennae farms, power lines, and communications structures, currently exist on or across the Covered Lands. As limited by the Ranchwide Agreement, utilities in existence as of June 17, 2008, the date of the Ranchwide Agreement, may be used, maintained, repaired, or replaced in their existing location and footprint. In addition to existing

utilities, Plan-Wide Activities for utilities include some relocation and development expansion activities, as specifically described in Section 2.2.1 of this TU MSHCP.

Relocation and/or construction of utilities have not been observed to be a source of impacts to California condors historically on the ranch; however, since there is a risk to California condors from collision with taller power lines, towers, or other tall structures resulting in possible injury or death, measures to avoid or minimize impacts to condors are proposed in Section 4.4 below. Although existing utilities may be relocated, no new transmission towers or lines are proposed to be built within the TMV Planning Area or elsewhere within the Covered Lands, and an existing power line will be relocated underground. Existing power lines on the ranch have not been shown to be a source of collision injury or mortality to condors, likely because most of the existing lines and towers are situated in areas of the ranch generally not used by condors for foraging or feeding. For the reasons described above, maintenance and construction of utilities are not expected to have an adverse effect on condors.

(8) Back-country cabins:

Nine back-country cabins are currently present on the Covered Lands. Maintenance and use of these cabins would continue. In addition, cabins may be relocated with limitations as described in Section 2.2.1 of this TU MSHCP. To protect condors, no new cabins may be constructed in or relocated to the Condor Study Area. As previously noted, microtrash left by users of these cabins could adversely affect condors through ingestion of microtrash by chicks that are fed by adults. In addition, human actions from users of these cabins that cause the birds to fly off of roosts or carcasses can interfere with condors' needs to rest and feed and may have negative effects on the health of individual California condors so affected. Measures to avoid or minimize any effects that could disturb roosting or feeding condors and to minimize the potential for ingestion of microtrash by condors are provided in Section 4.4. With these measures and the restrictions described above, the cabins are not expected to have an adverse effect on condors.

(9) Ancillary ranch structures:

The TU MSHCP provides for the maintenance, construction, expansion, or relocation of existing structures on the TU MSHCP Mitigation Lands that support ranching activities, provided that such activity is de minimis. The permissible level of disturbance is small, so that even if such structures were constructed within suitable condor foraging habitat areas, they would not impact foraging activity, because the TU MSHCP provides for the permanent preservation of both extensive forage and roosting habitat, as well as consistent supply of food associated with the ranching and hunting activities supported by these ancillary structures. With respect to non-de-minimis activities, this TU MSHCP establishes a meet-and-confer process that would allow adverse impacts to be avoided. As noted, ancillary ranch activities would support ranching or hunting uses that benefit the condor, and no adverse effects associated with these ancillary structures are expected.

(10) Fencing:

Existing fences may be maintained throughout the Covered Lands. In addition, under this TU MSHCP as described in Section 2.2.1, new fencing may be constructed only to support existing ranch uses at historical levels and mitigation activities. While fencing currently occurs and can occur within habitat used by condors, fencing is not known to adversely affect condors on the ranch or in other areas within the range of the condor. In addition, any new fencing would first be subject to a site evaluation to avoid impacts to sensitive natural resources under the RWMP required by the Ranchwide Agreement and this TU MSHCP. Therefore, no adverse effects associated with fencing are expected to occur to condors.

(11) Lebec/Existing Headquarters Area uses:

The existing uses in and around TRC's corporate headquarters are located adjacent to I-5 (within 0.5 mile) and therefore are not located in an area that is expected to be used by condors.

(12) Mitigation, monitoring, and management:

Implementing the mitigation requirements related to this TU MSHCP is intended to benefit the condor, and additional mitigation required by any other entity must be carried out in accordance with FESA and reviewed by USFWS. Such activities would not result in adverse effects to the condor.

4.2.1.2 COMMERCIAL AND RESIDENTIAL DEVELOPMENT ACTIVITIES

This section addresses potential impacts on California condors posed by proposed commercial and residential Development Activities (described in *Section 2*) within Covered Lands:

(1) TMV Planning Area:

The TMV Planning Area includes three components: the TMV Specific Plan Area; Oso Canyon, for which there are no current development plans; and West of Freeway, a small area of proposed commercial space west of I-5. The TMV Specific Plan Area is the location of the TMV Project, a master-planned resort community, including residential, hotel, recreational, commercial, institutional, and other support uses. As originally planned, the TMV Project included development extending up to Grapevine Peak; the upper northernmost ridges of Middle, Silver, Squirrel, and Lola's Ridges; the eastern extent of Geghus Ridge; and within Beartrap Canyon.

However, as a result of input by the Condor Panel, the TMV Project area was substantially modified to pull development (approximately 2,385 acres of proposed residential lots) off of these higher-elevation ridges and preserve these areas that have been historically used and currently are used as condor roosting, foraging, and feeding areas, as well as overflight areas

used during movements between habitat to the northeast and southwest. As reconfigured in accordance with the Condor Panel's recommendations, the TMV Specific Plan Area will avoid and permanently preserve these important condor roosting, foraging, and flyover habitat areas. Such reductions will also minimize the potential for condor habituation and microtrash ingestion by avoiding development in areas used by condors.

While historically habitat loss was not considered as one of the primary reasons for the decline of the condor, the TU MSHCP considers habitat loss to be of concern and considers habitat loss as a potential long-term challenge in meeting the overall recovery goals of the California condor, particularly if current issues surrounding persistent lead poisoning are resolved. As the condor population continues to expand and reoccupy historic range areas, the loss of foraging habitat that has converted to land uses not conducive to livestock grazing, hunting, or conservation of native ungulate populations may become one of the primary management issues for the recovery of the species. Habitat in which condors can readily access carrion and that provides suitable winds and updrafts to serve as flyover/movement habitat is important to condors as they reestablish traditional foraging and movement patterns and recolonize historic range areas. The loss of foraging habitat as a result of commercial and residential development under the TU MSHCP, particularly the TMV Project, is discussed in more detail in section 4.2.2.2 below.

However, per the TU MSHCP and the Ranchwide Agreement, approximately 73,562 acres of foraging habitat (excluding areas considered indirectly affected by proposed development and therefore not usable by condors) will be preserved within Covered Lands in perpetuity and managed for the benefit of the species. This represents 87% of all modeled condor foraging habitat within Covered Lands. Consequently, while the loss of suitable foraging habitat associated with the original configuration of the TMV Project was considered a potentially adverse effect on condor habitat, this loss was minimized by (1) the preservation within the TMV Planning Area of habitat (upper-elevation northern ridges and the easternmost portion of Geghus Ridge) considered to be of historical and current value to condors as foraging and flyover habitat, and; (2) preservation of 129,318 acres (91%) of Covered Lands that contains foraging, roosting, and flyover habitat historically and currently used by condors.

As previously discussed, while the potential for California condors to be attracted and/or habituated to areas of human development has been substantially reduced due to recent changes in aversion training techniques in captive-reared condors prior to release, the potential for an individual or two to still show signs of habituation cannot be ruled out. Habituation to development runs several risks, including intentional injury, accidental injury, well-meaning efforts to feed the birds, or harm to the birds from becoming habituated to human activities and ingesting microtrash associated with such activities and human structures. California condors demonstrating habituation behavior must be chased away from dwellings and are at further risk of injury at that time. Accordingly, such "deterrence" is conducted by persons trained for that

purpose and permitted under Section 10(a)(1)(A) of FESA and under the Memorandum of Understanding between USFWS and CDFG that allows such interaction with California condors.

USFWS has determined that California condors that become attracted to human activity and that are not deterred from previous aversion training received while in captivity, and that are not discouraged by deterrence efforts after becoming habituated to human structures or activities, must be captured and relocated, undergo additional aversion training, and be re-released, or be permanently removed from the wild. The need for capture and relocation resulting from habituation would constitute a non-lethal "take" of the California condor. Avoidance, minimization, and mitigation measures to avoid or prevent California condor habituation behavior that were developed for this TU MSHCP by USFWS's California Condor Recovery Program Coordinator after inspection of key areas of the development footprint, and further refined by recommendations of the Condor Panel and USFWS guidance, are provided in Section 4.4.

As previously noted, a primary cause of California condor mortality has been collision with power lines. Nine of the California condors released between 1992 and 2003 died after collisions with power lines, making this a major factor in the loss of reintroduced birds. As discussed above, no new aboveground power lines will be constructed to serve development under the TU MSHCP, and approximately 5 miles of an existing power line will be relocated underground. In addition, a number of measures are included as part of the TMV Project that would avoid and/or minimize the potential for collisions with existing utility towers or proposed new antennae or other pole-like structures. These measures are discussed in Section 4.4.

As previously noted, microtrash is known to be a source of injury and/or mortality to condor chicks. Microtrash can be left by individuals or groups participating in various recreational uses within the TMV Specific Plan Area, such as hiking and biking, as well as by those participating in organized recreational events adjacent to or within areas likely to be used by condors. Measures to avoid and/or minimize the potential of microtrash to be ingested by condors are provided in Section 4.4, and adaptive management measures are discussed in Section 4.6.

(2) Lebec/Existing Headquarters Area:

TRC's corporate headquarters is located immediately east of I-5 and within the approximately 410-acre Lebec/Existing Headquarters Area. Currently, this area includes a number of corporate headquarters buildings, an antique shop, a post office, several athletic fields, a church, and 22 residences. Existing activity in the Lebec/Existing Headquarters Area would continue to occur. While additional development could occur here, TRC has no immediate development plans for this area. Because this area is located within a relatively steep canyon with little open habitat and is next to I-5, condors are not expected to forage within or otherwise utilize this area. Condors have not historically used this area, which is also outside the designated critical habitat area. Therefore, no adverse effects associated with potential loss of habitat in this area are expected to occur.

(3) Tejon-Castac Water District Parcel:

The Tejon-Castac Water District will operate and possibly expand water infrastructure within a 16-acre parcel. Because this area is within the bottom of a canyon and in wooded/vegetated habitat, no loss of condor foraging habitat will occur and no other adverse effects on condors will occur with construction at the aqueduct turnout.

4.2.2 ANTICIPATED TAKE OF CALIFORNIA CONDOR

4.2.2.1 FORMS OF TAKE

The three forms of "take" of listed species under FESA typically addressed in habitat conservation plans are: (1) direct killing or injury; (2) significant habitat modification or degradation that actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (see 50 CFR 17.3 ["harm" definition]); or (3) intentional or negligent acts or omissions that create the likelihood of injury by annoying wildlife to such an extent as to significantly disrupt normal behavioral patterns, including breeding, feeding, or sheltering (see 50 CFR 17.3 ["harass" definition]).

The purpose of this TU MSHCP as related to the California condor is to avoid, minimize, and/or eliminate all potential direct take, and take due to harm or harassment (including take resulting from habituation of the birds to human activities or structures), under FESA from Covered Activities on Covered Lands.

4.2.2.2 TAKE ASSESSMENT

Direct and indirect impacts associated with Plan-Wide Activities and commercial and residential Development Activities within Covered Lands that could potentially result in some form of take include exposure to microtrash, disturbances to feeding or roosting condors, the loss of foraging habitat, risk of collisions with artificial structures, and habituation of released condors to human structures and activities. Each of these is summarized below and the potential for take, if any, is identified.

Exposure to Microtrash

Microtrash—small bits of plastic and metal such as bottle caps, pop-tops, and PVC pipe fragments that are inadvertently fed to hatchlings by their parents—is an important factor affecting condor breeding activity (Grantham 2007b; Mee et al. 2007). While adult condors can usually pass such materials without harm, it can cause injury or mortality to condor chicks.

As discussed above, Plan-Wide Activities, including film production, passive recreation, repair and maintenance of roads, use of back-country cabins, and ongoing operations within the Covered

Lands, can result in the buildup of microtrash associated with the development of residences and other structures within condor foraging areas.

However, several measures, including routine efforts to eliminate microtrash and disseminate information regarding the dangers of microtrash and guidelines to follow to eliminate microtrash, are incorporated into the Plan-Wide Activities and commercial and residential Development Activities conservation measures to avoid and/or minimize the potential for microtrash to collect in areas used or potentially used by condors. These measures are discussed in Section 4.4. Consequently, no lethal take as a result of ingestion of microtrash generated within Covered Lands is expected to occur.

Human Disturbances

As previously noted, the intentional or inadvertent harassment of condors feeding on carcasses, roosting in trees or on rock outcrops, or that are otherwise utilizing areas within the Covered Lands could cause significant disruption of normal feeding or roosting behaviors in individual condors. Such disruption could occur as a result of Plan-Wide Activities, including noise, nighttime lighting, and activities associated with film production, passive recreation, and occupied back-country cabins. However, several measures, including dissemination of information regarding condor biology and natural history, and inappropriate behaviors and actions near condors, are incorporated into the Plan-Wide Activities to avoid and/or minimize the potential for such activities to disturb condors within Covered Lands. These measures are discussed in Section 4.4. Consequently, no lethal take as a result of disturbance (harassment) is expected to occur.

Loss of Foraging Habitat

Loss of foraging habitat, if combined with a significant loss of food source availability, could cause disruption of normal feeding behaviors in individual condors. Thus, the analysis in this TU MSHCP considers both factors.

Since the time the Draft TU MSHCP was issued to the public in January 2009, and based on the USGS report and on additional evaluations of condor GPS data through May 2011, substantially more California condors have been released into the wild, and more condors are using Tejon Ranch and the greater Tehachapi Mountain region (albeit in use patterns consistent with what was described in the Draft TU MSHCP). The evaluation of suitable condor foraging habitat was previously based largely on historic observations and documentation of condor habitat use prior to the initiation of the captive breeding program. However, USFWS recently developed a new model for determining suitable foraging habitat for the California condor on Tejon Ranch.

Specifically, the Tejon Ranch Vegetation Composite Geographic Information System (GIS) layer included in the TU MSHCP was used to identify the extent of vegetation communities that are most easily and commonly used by condors. For purposes of the foraging habitat model,

suitable condor foraging habitat was determined to include those areas where condors are likely to consistently find and access food, in light of food availability and accessibility. As a first step, the GIS layers were overlain with aerial imagery of Tejon Ranch to compare the relative density of the vegetative canopy to open ground. A field site visit was conducted by USFWS condor biologists to determine the relative density, thickness, and extent of the vegetative understory in various vegetation communities, and to assess the potential for condors to access food and/or escape from potential predators. Due to the large expanse of woodlands on Tejon Ranch, it was determined that while there are likely to be some areas within woodland vegetation communities where the understory vegetation structure might allow condors to access a carcass, based on a field visit to look at the vegetation structure of the habitat identified as "woodlands" (i.e., the broad category of vegetation types including greater than 40% canopy cover), USFWS determined that "woodlands" were generally not open enough under the tree canopy to allow condors access to any food sources that may occur there. Therefore, woodland, chaparral, and most scrub vegetation types across the ranch were not identified as suitable foraging habitat for California condors. Including the additional acreage represented by these dense and largely inaccessible vegetation types would greatly overestimate the amount of habitat on the ranch where condors are likely to be able to consistently find and access food. Additionally, since condors have also shown the ability to access food sources on the lower elevations of the ranch, where the topography is less severe than within Covered Lands, and since it is generally acknowledged that opportunistic foraging and feeding will occur wherever condors can locate and safely access food, accessible areas with consistent food supply are considered to be suitable foraging habitat. However, some areas of the ranch, particularly where hunting and grazing regularly occur, may consistently provide more food opportunities for condors than other areas, given the distribution of carcasses.

Based on this analysis, grasslands and oak savannahs are the vegetation communities on Tejon Ranch where condors are the most able to consistently find and access food and, therefore, constitute the vast majority of the suitable foraging habitat in the revised model (see *Figure 5-1, Covered Lands Vegetation Map,* for location of grassland and oak savannah habitat locations). Some additional vegetation communities (e.g., riparian woodland) where the vegetative understory is or may be sparse enough to allow condors to access under the tree canopy were also included. Other vegetation communities, such as chaparral, dense scrub, and most of the on-site woodlands that are characterized as having very little or no open area between the vegetation would make it difficult for condors to move through very easily, due to their large body size and wingspan, and make them more vulnerable to predators. Consequently, it was concluded that condors are not likely to frequent areas such as these that would make it difficult to access and locate food sources.

Furthermore, percent slope and distance from ridgeline parameters are no longer used as parameters in the model as they had been in the previous version of the foraging habitat model, because of the absence of literature supporting such a limitation. In addition, although the

previous condor habitat model included "on-the-ground" condor GPS data points, consistent with available data, USFWS ultimately adopted a more expansive view of suitable habitat using the same data, consistent with the USGS study. To some degree, this shift in focus may also capture areas that may be useable by a larger future condor population.

Based on the revised USFWS model, a total of 182,614 acres of suitable foraging habitat was calculated to occur on Tejon Ranch. Of this total, 84,112 acres occur within Covered Lands. Approximately 79% of the suitable condor habitat in the Covered Lands, or 66,117 acres, is assumed to be unencumbered by development and suitable for condor foraging. The remaining 21% is considered directly and indirectly affected by proposed development and therefore not usable by condors (see indirect impacts discussion below. All of the 66,117 acres of suitable condor habitat remaining within Covered Lands will be preserved in perpetuity and managed for the benefit of the species pursuant to a resource management plan under the auspices of the Conservancy. This includes habitat within the approximately 37,000-acre Condor Study Area initially identified and delineated by the USFWS Condor Recovery Program that has historically been a core habitat area for foraging and roosting by condors on Tejon Ranch and continues to be used by released condors today. An additional 83,818 acres of suitable foraging habitat will be preserved under the Ranchwide Agreement outside of Covered Lands.

When considering the loss of foraging habitat associated with commercial and residential Development Activities within Covered Lands, particularly the direct loss of foraging habitat associated with the proposed TMV Planning Area development envelope, USFWS also considered the indirect effects to California condors that could occur that would ultimately contribute to the overall amount of foraging habitat that would be lost or adversely affected within the TMV Planning Area. To calculate the area of indirect impacts, USFWS included an additional "buffer" of habitat adjacent to the development envelope, which is conservatively presumed to not be used by condors due to the indirect impacts associated with the proximity of development. For example, disturbance (noise, outdoor activities, etc.) associated with the proposed development in the TMV Planning Area could adversely affect condors that may be actively feeding on, or perched near, a carcass in proximity to development. Condors may locate a food source, but not land and feed due to the location of the carcass in relation to the development and associated disturbance. To calculate and estimate the area of indirect effects to suitable condor foraging habitat, USFWS determined that suitable habitat within a distance of approximately 0.5 mile extending out from the edge of the proposed development envelope would not function as condor foraging habitat due to potential disturbances to feeding condors. This determination was based on reports in the literature of condors feeding within distances under 0.5 mile from isolated ranch houses and reports of the distance at which approaching humans induce condors to abandon feeding, although the use of a fixed 0.5-mile distance is conservative in that it does not account for intervening topography or vegetation that may shield condors from indirect effects. USFWS determined that most of these areas of indirect effects that

would otherwise be classified as suitable foraging habitat will not consistently provide feeding opportunities for condors.

Based on the model, a total of approximately 19,536 acres of suitable condor foraging habitat occurs within the TMV Planning Area. No suitable foraging habitat occurs within the Lebec/Existing Headquarters Area. After application of the direct impact area from development and the 0.5-mile indirect disturbance area, the TMV Planning Area would include approximately 2,637 acres of suitable foraging habitat within open space areas, including approximately 2,561 acres of suitable foraging habitat within designated critical habitat (see discussion in Section 4.2.3, below).

Outside the area of indirect effects, USFWS has determined that the larger blocks of suitable foraging habitat within the TMV Planning Area Open Space would still function as foraging habitat (e.g., the eastern end of Geghus Ridge and the area north of Grapevine Peak) when more than 0.5 mile away from development. Based on this assessment, approximately 17,995 acres of suitable foraging habitat are considered to be directly or indirectly lost as a result of development, of which some 12,015 acres are located within the boundaries of the designated critical habitat (see discussion below). Of note, the actual disturbance within the TMV Planning Area development envelope will be limited to 5,533 acres. However, the exact location of various residences and other development infrastructure is unknown; therefore, the larger development envelope of 8,817 acres is conservatively used to assess direct impacts on suitable foraging habitat. Overall, 66,117 acres of suitable habitat will be conserved within the TU MSHCP Mitigation Lands within the Covered Lands that will remain as functional and viable foraging habitat for California condors with implementation of the TU MSHCP. An additional 83,818 acres of suitable habitat will be preserved outside of Covered Lands under the Ranchwide Agreement. The acreages of existing, impacted, and preserved condor suitable foraging habitat are presented in Table 4-1 below.

Determination of the significance of adverse effects to the condor population or its critical habitat (discussed in Section 4.2.3, below) from loss of such suitable foraging habitat also requires assessment of the availability of food in the condor's range, because the California condor forages opportunistically over large expanses of its range. It is a visual scavenger that may identify a food source on its own, or by following other scavenging species, such as common ravens and golden eagles, to locate carcasses. It is recognized that, by definition, an opportunistic scavenger feeds wherever it can find and access an appropriate food source (i.e., opportunistic foraging and feeding will occur wherever condors locate and are able to safely access food). Therefore, for purposes of the TU MSHCP, the analysis of direct and indirect effects on condor foraging habitat includes an analysis of food availability throughout the range of the species in California. This analysis is presented below.

Table 4-1, Condor Suitable Foraging Habitat

Land Area	Acres
Existing	
Tejon Ranch	**182,614**
Covered Lands	**84,112**
TMV Planning Area	**19,536**
TMV Planning Area, but within Critical Habitat	**13,678**
Impacted	
TMV Planning Area (direct/indirect)	**17,995**
TMV Planning Area, but within Critical Habitat	**12,015**
Preserved	
TU MSHCP Mitigation Lands	**66,117**
Ranchwide Agreement outside Covered Lands	**83,818**
TMV Planning Area Open Space	**2,637**
TMV Planning Area Open Space, but within Critical Habitat	**2,561**

Free-flying California condors need approximately 2.2 pounds of food per day based on caloric requirements (Wilbur 1978b). Assuming condors obtain a minimum of 50 pounds of food from the average ungulate carcass (some carcasses also likely provide more than 50 pounds), Wilbur (1978b) calculated a population of 50 condors would require 39,600 pounds of food or 720 carcasses per year. Based on these calculations, an estimated 2,160 carcasses per year would be necessary to provide enough food for a population of 150 condors (which would constitute one of the two such populations needed to meet the down-listing criterion of the Recovery Plan.) Although condors in Southern California are not currently mixing regularly with condors in the north (generally between the Big Sur Coast in Monterey County and Pinnacles National Monument in San Benito County), it is expected that individuals, probably juveniles and unmated adults, will eventually intermix if these sub-populations continue to grow and expand their ranges.

Rangewide, the total number of beef cattle reported in Kern, Los Angeles, San Luis Obispo, Santa Barbara, Tulare, Kings, and Ventura Counties in 2009 equaled 112,000 head (USDA, County Agricultural Commissioners). There was an average mortality rate of 4.7% for cattle and calves in California from 1988 through 2010 (USDA 2011). The U.S. Department of Agriculture includes death loss of all cattle in its reporting and the average mortality of range cattle could be lower or higher than the overall average. Based on that average mortality, this rangewide herd would generate approximately 5,260 cattle carcasses within the range of the Southern California flock of condors.

Sheep and lambs also historically provided an important food resource for condors (Wilbur 1978b; Koford 1953). A total of 106,600 sheep and lamb were reported in Kern and San Luis Obispo counties in 2009 (County of Kern, 2009; County of San Luis Obispo, 2009), with an additional 28,469 sheep reported in Ventura County in 2009 (County of Ventura, 2009). The average sheep

and lamb mortality rate in California from 1988 through 2010 was 4.6% (USDA 2011). Using this average mortality rate, 135,060 sheep and lambs in these three counties would provide an estimated 6,212 sheep and lamb carcasses as potential food resources for California condor.

Based on the above livestock data, it is estimated that 11,472 cattle and sheep carcasses would be produced within the current range of the Southern California subpopulation of condors. These livestock animals together with native ungulate, other native mammal, and wild pig carcasses would likely provide additional food for condor. Livestock, wild pig, and native ungulate carcasses that may occur in Monterey and San Benito Counties are in addition to the 11,472 carcasses estimated in the Southern California sub-population's current range.

Certainly, not all carcasses that may be present within the Southern California sub-population's current home range are expected to be found and consumed by condors. Some carcasses may be disposed of by landowners, consumed by other predators, or simply not discovered by condors. The variability in food availability is consistent with the opportunistic scavenging and far-ranging foraging behavior characteristic of condors (41 FR 41914–41916; USFWS 1996b; Wilbur 1978b; Snyder and Snyder 2000). Nevertheless, when cattle, sheep, native ungulates, wild pig, and other animal mortalities were combined, USFWS estimated that substantially more carcasses per year would potentially be available within the current Southern California population's range than would be needed (2,160 carcasses) to support one (California population) of the two populations of 150 free-flying condors identified in the Recovery Plan's downlisting criteria. Livestock production continues to play a significant role in the economies of counties within the condor's historical range, and therefore, USFWS does not expect that all condors in the recovering population will feed exclusively on Tejon Ranch at all times.

Under the TU MSHCP, the main sources of food for condors—hunting and grazing—will continue throughout the Tejon Ranch critical habitat unit as well as the other areas of suitable condor foraging habitat within Tejon Ranch. Under the Ranchwide Agreement, grazing is anticipated to continue at the current level of 14,500 head of cattle on the remainder of Tejon Ranch, and hunting would also continue on large areas of suitable foraging habitat preserved under the Ranchwide Agreement and within Established Open Space in Covered Lands. Approximately 800 to 1,200 pigs are killed on Tejon Ranch each year and wild pigs are expanding their range in California (CDFG 2011e). Along with wild carrion, hunting activities would continue to provide important food resources for condors using the ranch. Although regular hunting activity will be reduced in scope within the TMV Specific Plan Area, TRC's commercial hunting operations will continue in the portions of critical habitat that are outside of the development boundaries.

Taking into consideration the direct permanent loss of approximately 6,656 acres and indirect effects to approximately 11,339 acres of modeled suitable foraging habitat, the amount of food condors require, and the current amount of food estimated to be available in the condors' range, and the amount of modeled suitable foraging habitat remaining on the ranch, along with the continuation of historical and current grazing levels and practices, feral pig hunting, and the natural population of native ungulates that provide consistent food sources, the ranch will

continue to meet the foraging and feeding needs of condors that currently forage on site and will accommodate the foraging and feeding needs of condors in the future as the population expands. In addition, the proposed permanent conservation of historically and currently used traditional roost sites on Winters Ridge, along with the permanent land use restrictions on the TU MSHCP Mitigation Lands and other rangelands proposed by Tejon Ranch within the Tejon critical habitat unit, would enable those lands to continue to provide foraging and roosting habitat essential for the conservation of the condor. The prohibition on commercial and residential development; the continuation of ongoing ranchwide activities, such as grazing and hunting; and strict limitations on the nature and extent of public access are expected to enhance the conservation value of the TU MSHCP Mitigation Lands and other conserved areas of the ranch for the condor.

The loss of foraging habitat associated with the current configuration of the Development Activities proposed under the TU MSHCP is therefore not considered an impact that will significantly adversely affect this species or rise to the level of causing "injury" or "harm" to condors or otherwise interfere with essential behavior patterns. In addition, because condors have not and do not breed on Tejon Ranch, no loss of active nests would occur. Consequently, no take associated with habitat loss is anticipated. In addition, the Covered Activities will avoid take of California condor as defined by California law.

Collisions with Power Lines and/or Artificial Towers/Structures

Since their reintroduction into the wild, California condor populations have been affected by collisions with power lines and high-voltage transmission lines (Meretsky et al. 2000; Grantham 2007a; Mee and Snyder 2007). At least seven individuals were killed by collisions with lines between 1988 and 1999 (Meretsky et al. 2000), and such collisions remain a threat to released condors (Snyder and Snyder 2000, 2005; Snyder 2007).

Historically, condors typically did not perch on utility towers of any kind (Bloom pers. comm. 2008). However, many captive-bred and released condors now perch regularly on utility towers at some locations. While direct collisions of condors with stationary transmission or communication towers have not been documented with historical condor populations nor with condors released into the wild since the onset of the captive breeding program, any new aboveground transmission or communication towers or similar vertical structures installed as a result of development within the TMV Planning Area, depending on location, could potentially impact condors as a result of collisions while attempting to land or during low foraging flights. This is particularly a threat if such towers are located along prominent ridgelines potentially used by condors during foraging.

No new aboveground high-voltage towers, transmission lines, or distribution lines will be built within the TMV Planning Area or elsewhere within the Covered Lands, although existing utilities may be relocated near their current positions. All new permanent transmission and distribution lines will be undergrounded. The County of Kern (County) has determined that emergency communication towers will need to be installed to ensure full radio communication

coverage throughout the TMV Planning Area in the event of an emergency, including but not limited to natural disasters such as fires, storms, or earthquakes, and for incidents involving personal injury or safety. Cognizant of the need to minimize the potential for impacts such towers may pose on low-flying condors, the County is requiring installation of two towers (PA-2 and DF-1, as depicted in *Figure 4-9*, *Proposed Kern County Emergency Communication Tower Locations*), with one at approximately 68 feet in height (including antennae) and the other at approximately 65 feet in height (including antennae), at two separate locations in the TMV Planning Area development envelope in order to provide suitable radio communication coverage. Both towers will incorporate condor anti-perching devices and will be situated such that they will be clearly visible from surrounding vegetation, terrain, and/or other artificial structures. For the PA-2 tower, TRC will consult with USFWS regarding the feasibility of locating the tower downslope (closer to trees), and agrees to do so to the extent feasible as determined by the County. For any future emergency communication towers on Covered Lands, USFWS must review, and may approve, the location and configuration of the towers.

In addition, a number of measures are included as part of the TU MSHCP that would avoid and/or minimize the potential for collisions with communication towers or similar vertical structures, including smaller cell phone towers and/or radio antennae. These measures are discussed below in Section 4.4. Consequently, no take as a result of collisions (harm) is expected to occur, and the Incidental Take Permit (ITP) proposes no take authority associated with collisions.

Habituation to Human Activity and Artificial Structures

Early releases of captive-bred condors identified unanticipated problems related to the acclimatization of condors to human activities. Condors were observed raiding picnic coolers, perching on houses and aerials, and, in one instance, breaking into a summer cabin and ransacking the interior (Grantham, pers. comm. 2008). Acclimatization potentially draws condors to areas in which human activities could inadvertently harm individual birds and can modify the species behavior in the wild.

California condors demonstrating habituation behavior must be chased away from dwellings and are at further risk of injury at that time. Accordingly, such deterrence is conducted by persons trained for that purpose and permitted under Section 10(a)(1)(A) of FESA and under the Memorandum of Understanding between USFWS and CDFG, as appropriate, that allows such interaction with California condors.

USFWS has determined that California condors that become attracted to human activity and that are not deterred from previous aversion training received while in captivity, and that are not discouraged by deterrence efforts after becoming habituated to human structures or activities, must be captured and relocated, undergo additional aversion training, and be re-released, or be permanently removed from the wild. The need for capture and relocation resulting from habituation would constitute a non-lethal take of the California condor resulting from a Covered

Activity. During the term of the ITP, TRC would be limited to four such takes. No lethal takes of the California condor are requested under an ITP. Avoidance, minimization, and mitigation measures to avoid or prevent California condor habituation behavior that were developed for the TU MSHCP by the USFWS California Condor Recovery Coordinator after inspection of key areas of the development footprint, and further refined by recommendations of the Condor Panel and USFWS guidance, are provided in Section 4.4.

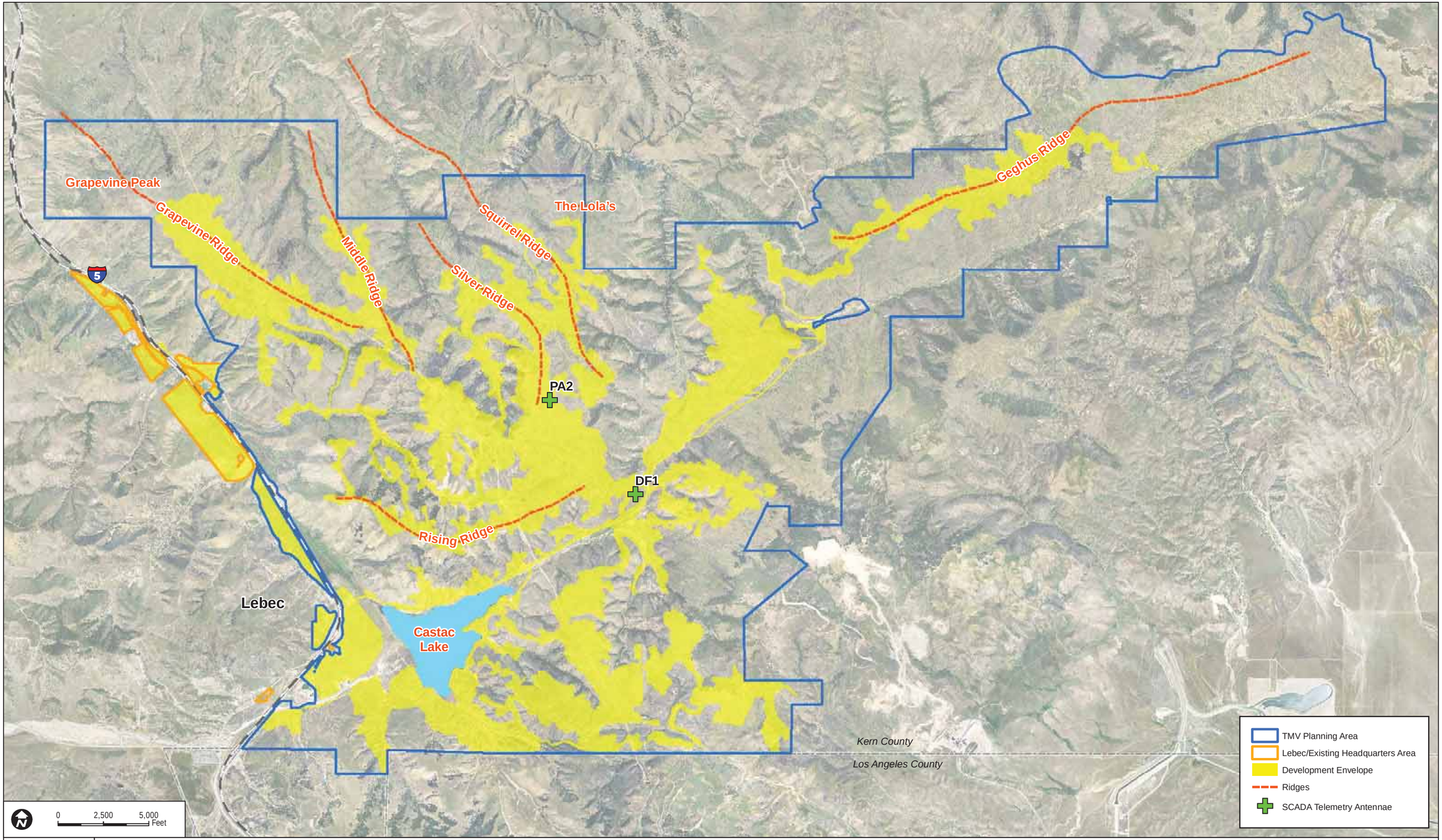
4.2.3 EFFECTS ON CALIFORNIA CONDOR CRITICAL HABITAT

4.2.3.1 REGULATORY OVERVIEW

This section includes an analysis of FESA requirements with respect to critical habitat. The actual application of FESA standards is the responsibility of USFWS at the time agency discretion is exercised.

Approximately 605,194 acres within California were designated by USFWS in 1976 as critical habitat for the condor. The designation generally identified square-section townships or quadrangles of land that were intended to encompass areas of intensive condor use known at the time of the designation. The USFWS designation grouped condor critical habitat into nine separately described "areas," encompassing approximately 134,875 acres that included Tejon Ranch; approximately 127,774 acres are actually within the Tejon Ranch boundary, inclusive of approximately 3,878 acres of private/commercial inholdings. Approximately 95,068 acres of designated critical habitat are within Covered Lands, and 19,091 acres of the 28,253-acre TMV Planning Area are within critical habitat (see *Figure 4-5*).

Under FESA, if a proposed action would adversely affect designated critical habitat, a Federal agency must consult with USFWS to determine if the proposed activity might result in the "destruction or adverse modification" of critical habitat. USFWS issues a biological opinion regarding effects to critical habitat (and other pertinent FESA matters) at the conclusion of the consultation process. However, several court cases, including *Gifford Pinchot Task Force v. United States Fish & Wildlife Service*, 378 F.3d 1059 (9th Cir. 2004), have invalidated the regulatory definition of "destruction or adverse modification" previously utilized to analyze critical habitat impacts during Federal agency consultations. These cases require that USFWS consider whether a proposed activity would impermissibly affect the conservation value of critical habitat, which includes recovery (the eventual downlisting or delisting of the species) or survival functions and values, to make an adverse modification determination.



SOURCE: TRC 2007

FIGURE 4-9

Proposed Kern County Emergency Communication Tower Locations

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In December 2004, the USFWS Director's office distributed a memorandum to USFWS's regional directors, "Application of the 'Destruction or Adverse Modification' Standard under Section 7(a)(2) of the Endangered Species Act" (December 9, 2004) (the "Adverse Modification memorandum"). The Adverse Modification memorandum provides guidance to USFWS biologists conducting consultations under FESA pending the adoption of a new regulatory definition of "destruction or adverse modification." Since that time, the regulation invalidated by *Gifford Pinchot* and other courts has not been revised or amended. The Adverse Modification memorandum represents the currently applicable approach utilized by USFWS to address whether an action could destroy or adversely modify critical habitat. As least one Federal court has indicated that compliance with the Adverse Modification memorandum avoids the legal concerns with the existing regulation that were identified in *Gifford Pinchot* and other court cases.[1]

The Adverse Modification memorandum instructs USFWS to not use or cite the current regulation to determine whether an action could destroy or adversely modify critical habitat.[2] In lieu of such citation or reliance, the memorandum identifies the following analytical framework for conducting adverse modification determinations during FESA consultations:

1. In the "Status of the Species/Critical Habitat" analysis in the biological opinion, discuss the entire designated critical habitat area in terms of the biological and physical features that are essential to the conservation (discussion of "survival" in this and other sections of the adverse modification analysis is not appropriate) of the species. This analysis should identify and discuss the primary constituent elements of the critical habitat (as described in the final rule) and, very importantly, the current condition, the factors responsible for that condition, and the conservation role of individual critical habitat units. Many critical habitat designations pre-date the requirement for identification of primary constituent elements that are essential for the conservation of the listed species. In consultations on actions that

[1] In *Center For Native Ecosystems v. Cables*, 509 F.3d 1310 (10th Cir. 2007), the court considered whether USFWS properly analyzed the risk that critical habitat for the Preble's mouse would be adversely modified by certain grazing activities. The court reiterated that the adverse modification analysis must include consideration of recovery as well as survival functions and that the existing regulation defining "destruction or adverse modification" was invalid under *Gifford Pinchot* and other cases. The court found, however, that the issuance of the Adverse Modification memorandum demonstrated that USFWS's determination was not based on the regulatory definition rejected by the courts ("[O]n December 9, 2004, the USFWS apparently instructed its biologists not to rely on the definition pending adoption of a new definition. Therefore, we need not consider the validity of the [invalidated] definition…."). Since the Preble's mouse critical habitat determination did not rely on the regulation, and cited "conservation" criteria that includes the concept of recovery as well as survival, the court upheld USFWS's finding that no destruction or adverse modification of Preble's mouse critical habitat would occur as a result of the proposed activities.

[2] The memorandum further recommends that USFWS staff expressly state in consultation documentation that the determination did not rely on the invalidated regulation and include the following statement: "This biological opinion does not rely on the regulatory definition of "destruction or adverse modification" of critical habitat at 50 C.F.R. 402.02. Instead, we have relied upon the statutory provisions of the FESA to complete the following analysis with respect to critical habitat."

involve this type of critical habitat, the best available scientific and commercial data should be used to determine and document these elements or habitat qualities.

2. In the "Environmental Baseline" analysis, discuss the current condition of the critical habitat unit(s) in the action area, the factors responsible for that condition, and the conservation roles of the unit(s), with appropriate supporting documentation. In particular, discuss the relationship of the affected unit(s) in the action area to the entire designated or proposed critical habitat with respect to the conservation of the listed species, unless the proposed or final rule designating critical habitat has already clearly done so. Based on the results of this analysis, we will have a clear and credible basis for determining the significance of any adverse or beneficial effects of the action (and cumulative effects) on the function and conservation role of the affected unit(s).

3. In the "Effects of the Action" analysis, characterize the direct and indirect effects of the action and those of interrelated and interdependent actions on the proposed or designated critical habitat. Describe how the primary constituent elements or habitat qualities essential to the conservation of the species are likely to be affected and, in turn, how that will influence the function and conservation role of the affected critical habitat unit(s). This part of the analysis should focus exclusively on the effects to critical habitat. Conservation activities (e.g., management, mitigation, etc.) outside of critical habitat should not be considered when evaluating effects to critical habitat. Based on the analyses under (1) and (2) above, discuss the significance of anticipated effects to critical habitat.

4. In the "Cumulative Effects" analysis, characterize the effects of future, non-Federal actions reasonably certain to occur in the action area in terms of how the primary constituent elements or habitat qualities essential to the conservation of the species are likely to be affected and, in turn, how that will influence the function and conservation role of the affected critical habitat unit(s). Based on the analyses under (1) and (2) above, discuss the significance of these anticipated effects to critical habitat.

5. In the "Conclusion" section, following the standard text, present the reasons why we reached our 7(a)(2) conclusion. Discuss whether, with implementation of the proposed Federal action, critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species, based on the analyses under (1) through (4) above.

The FESA and USFWS regulations and regulatory guidance do not preclude development or other human use of designated critical habitat, provided that the impacts associated with the proposed activities avoid the destruction or adverse modification of the affected critical habitat. According to the USFWS guidance, a "critical habitat designation does not necessarily restrict further development. It is a reminder to Federal agencies that they must make special efforts to protect the

important characteristics of these areas" (USFWS, 2011b). The 1976 designation of condor critical habitat, which was one of the first designations under FESA, specifically observed that critical habitat was not intended to identify areas that must be avoided by human activity:

> [T]here may be many kinds of actions which can be carried out within the Critical Habitat of a species which would not be expected to adversely affect that species. This last point has not been well understood by some persons. There has been widespread and erroneous belief that a Critical Habitat designation is something akin to establishment of a wilderness area or wildlife refuge and automatically closes an area to most human uses. Actually, a Critical Habitat designation applies only to Federal agencies, and is a notification to such agencies that their responsibilities pursuant to Section 7 of the Act are applicable in a certain area (41 FR 41915).

This TU MSHCP implements the requirements of *Gifford Pinchot* and related cases, as well as USFWS's Adverse Modification memorandum by: (1) discussing the condor's entire designated critical habitat area in terms of the biological and physical features that are essential to the conservation of the species; (2) discussing the current condition and conservation roles of critical habitat within Tejon Ranch; (3) characterizing the direct and indirect effects of Covered Activities and how the habitat qualities essential to the conservation of the species and the function and conservation role of the critical habitat are likely to be affected; (4) characterizing how future, non-Federal actions reasonably certain to occur in the action area are likely to affect habitat qualities essential to the conservation of the species and the function and conservation role of the critical habitat; and (5) presenting conclusions based on this analysis regarding whether the proposed TU MSHCP will cause the destruction or adverse modification of condor critical habitat.

4.2.3.2 CONDOR CRITICAL HABITAT ESSENTIAL FEATURES

As previously discussed, USFWS has designated approximately 605,194 acres as condor critical habitat in nine separate areas: (1) the Sespe–Piru Condor Area; (2) the Matilija Condor Area; (3) the Sisquoc–San Rafael Condor Area; (4) the Hi Mountain–Beartrap Condor Areas; (5) the Mt. Pinos Condor Area; (6) the Blue Ridge Condor Area; (7) the Tejon Ranch area; (8) the Kern County rangelands; and (9) the Tulare County rangelands (see *Figure 4-4*). The designation pre-dated the identification of "primary constituent elements" essential for the conservation of the listed species currently utilized by USFWS to make critical habitat designations. The 1976 designation identified the conservation values of the nine critical habitat areas according to their contributions to condor nesting, roosting, or foraging functions:

> With regard to the California condor, the Sespe-Piru, Matilija, Sisquoc-San Rafael, and Hi Mountain-Beartrap Condor areas, as described below, are considered critical for nesting and related

> year-long activity. The Mt. Pinos and Blue Ridge Condor areas, as described below, are considered critical for roosting. The Tejon Ranch, Kern County rangelands, and Tulare County rangelands, as described below, are considered critical for feeding and related activities (41 FR 41914).

USFWS has adopted a Recovery Plan under FESA for the California condor. The most recent revision was completed in 1996.[3] A recovery plan sets forth "reasonable actions that are believed to be required to recover and/or protect listed species" (USFWS 1996b, p. ii). The Recovery Plan states that nesting, roosting, and foraging (feeding) functions are the most crucial functions required to maintain and achieve the recovery of the California condor:

> California condors require suitable habitat for nesting, roosting, and foraging. The recent range was restricted to chaparral, coniferous forests, and oak savannah habitats in Southern and central California. The species formerly occurred more widely throughout the southwest and also fed on beaches and large rivers along the Pacific coast. Nest sites are located in cavities in cliffs, in large rock outcrops, or in large trees. Traditional roosting sites are maintained on cliffs or large trees, often near feeding sites. Foraging occurs mostly in grasslands, including potreros within chaparral areas, or in oak savannahs. At present, sufficient remaining habitat exists in California and in southwestern states to support a large number of condors, if density-independent mortality factors, including shooting, lead poisoning, and collisions with man-made objects, can be controlled (USFWS 1996b, p. v).

A fourth habitat requirement that is not explicitly discussed in the 1976 designation or the Recovery Plan is the preservation of sufficient airspace for condor movement within the species' historic range. Large, high structures that intrude into condor flyways can cause collisions that could harm or disrupt the normal behaviors of the condor.

4.2.3.3 ROLE OF DESIGNATED CRITICAL HABITAT ON TEJON RANCH

As previously stated, the Tejon Ranch area of designated condor critical habitat comprises approximately 130,647 acres (see *Figure 4-5*). USFWS's 1976 designation stated that the Tejon

[3] Lloyd Kiff, a member of the Condor Panel who assisted with analysis of potential impacts of development of the TMV Project on condors, is one of the three listed authors of the 1996 Recovery Plan.

Ranch area primarily provides foraging functions that support condors nesting to the west in the designated Sespe–Piru area:

> The Tejon Ranch is very important because it contains the only significant feeding habitat remaining in close proximity to the Sespe-Piru Condor nesting area (41 FR 41914).

The Tejon Ranch critical habitat area is also discussed in Section 3 of the Recovery Plan, which observes that hunting activities within Tejon Ranch are beneficial to the condor because they provide food sources (carcasses), particularly during the fall months, which can support nesting populations in nearby areas. The plan states that the completion of an agreement with the ranch to maintain uses that benefit the condor, such as hunting, is a conservation goal for the species:

> The Tejon Ranch was an important condor feeding area throughout the annual cycle, but especially in the fall, when there is a high intensity of deer hunting on the ranch. A plan should be prepared with the consent and participation of the affected landowner to maintain its value for condors (USFWS 1996b, Subsection 3325, p. 29).

The Tejon Ranch area of designated critical habitat is largely undeveloped and is principally subject to cattle grazing use. Private, commercial hunting occurs throughout the critical habitat area on a year-round basis. Electrical and telecommunication towers, and certain other regional infrastructure facilities, currently exist within the critical habitat boundaries. No condor nesting sites occur within the Tejon Ranch critical habitat area. One historical roosting site is located on the northern face of the Tunis–Winters Ridge, approximately 5 miles from any of the proposed TMV Project commercial and residential Development Activities.

Foraging activity, including opportunistic feeding by condors in transit from the southwest or northeast, and by nesting condors or fledglings from the Sespe–Piru nesting area, has historically and continues to occur within the Tejon Ranch critical habitat area. In the past, condors were drawn to feeding and bait sites maintained by USFWS in the vicinity of the Tunis–Winters Ridge. In recent years, condors have been known to feed on pig and other hunting carcasses discarded by commercial hunters. Foraging activity within the Tejon Ranch critical habitat area is facilitated by the occurrence of open fields and low-density tree canopies that allow condors to spot carcasses from the air. Under these conditions, condors can more easily locate food sources than in areas in which tree canopies are heavier and open fields located along ridgelines are less prevalent.

4.2.3.4 POTENTIAL DIRECT AND INDIRECT EFFECTS TO CRITICAL HABITAT ON TEJON RANCH

Proposed commercial and residential Development Activities within the TMV Planning Area are located in the southwest corner of the area of designated critical habitat on Tejon Ranch (see *Figure 4-5*). The Lebec/Existing Headquarters Area is not located within designated critical habitat. As discussed above, approximately 19,091 acres, or 14.9%, of the 127,774 acres of total critical habitat on Tejon Ranch is located within the TMV Planning Area boundary; approximately 10,334 acres of the TMV Planning Area are outside of designated critical habitat. Critical habitat acreage within the TMV Planning Area boundary amounts to approximately 3.1% of the 605,194 acres of condor critical habitat designated statewide by USFWS in 1976.

None of the Tejon Ranch critical habitat area contains condor nesting sites. Covered Activities will have no direct effect on condor nesting activity within any of the species' designated critical habitat on Tejon Ranch. One historical roosting site is located within Tejon Ranch critical habitat on the north face of the Tunis–Winters Ridge (in the Condor Study Area). The nearest development in the TMV Planning Area (TMV Specific Plan component) is physically separated by approximately 5 miles and is visually shielded by several ridgelines from this roosting site. Commercial and residential Development Activities will have no direct effect on any known traditional condor roost site.

Based on USFWS's updated condor habitat suitability model, described above in Section 4.2.2.2, approximately 13,718 acres (16%) of modeled suitable foraging habitat within the Tejon Ranch critical habitat unit occurs within the TMV Planning Area. Of the total suitable foraging habitat in the Covered Lands (84,112 acres), approximately 17,995 acres (21%) of modeled suitable foraging habitat located within the TMV Planning Area boundary would be directly lost or indirectly affected by proposed development. A total of 6,656 acres of modeled suitable foraging habitat would be directly lost within the development footprint, and up to an additional 11,339 acres of modeled suitable foraging habitat could be indirectly affected by development-related disturbance (e.g., construction and ongoing human use that may result in visual and noise-related disturbance) outside of the development envelope. However, the actual area of direct and indirect effects is expected to be lower since the disturbance area in the TMV Planning Area is limited to a total of 5,533 acres. As discussed above in Section 4.2.2.2, USFWS determined that all habitat within a distance of approximately 0.5 mile extending out from the edge of the proposed development footprint would encompass the area in which noise and visual activity may disturb condors away from potential food sources. A conservative assumption is that feeding opportunities for condors would be eliminated in this 0.50-mile indirect effects area around the TMV Planning Area development footprint.

As discussed in Section 4.2.2.2, above, taking into consideration the direct permanent loss of approximately 6,656 acres and indirect effects to approximately 11,339 acres of modeled suitable

foraging habitat, the amount of food condors require, and the current amount of food estimated to be available in the condors' range, and the amount of modeled suitable foraging habitat remaining on the ranch, along with the continuation of historical and current grazing levels and practices, feral pig hunting, and the natural population of native ungulates that provide consistent food sources, the ranch will continue to meet the foraging and feeding needs of condors that currently forage on site and will accommodate the foraging and feeding needs of condors in the future as the population expands.

4.2.3.5 OTHER ACTIONS LIKELY TO AFFECT TEJON RANCH CRITICAL HABITAT

In June 2008, TRC and several major environmental groups completed the Ranchwide Agreement outlining the preservation of approximately 240,000 acres of the 270,000-acre ranch. The Ranchwide Agreement will result in several actions that will further protect and conserve the conservation functions and values of the Tejon Ranch critical habitat area, including the following:

- *Ranchwide Agreement conservation easement and Conservancy management.* Under the Ranchwide Agreement, preserved critical habitat within Tejon Ranch will be subject to a permanent conservation easement managed by a conservancy governed by a board composed of TRC, environmental, and independent third-party group members. The conservancy will preclude any new commercial or residential development in the lands subject to the easement, and will only allow new ranch-related structures or infrastructure if such activity preserves and protects the conservation values of the affected land. The Ranchwide Agreement will provide additional, permanent protections for the Tejon Ranch critical habitat area, including all of the Tunis-Winters ridge area that has been heavily used by condors in the past.

- *Ranchwide Agreement development activity.* Under the Ranchwide Agreement, future development within the Tejon Ranch critical habitat area will be limited to the TMV Planning Area and to two projects located on the San Joaquin Valley floor to the north of the Tehachapi range, including the following:

  (1) The Tejon Ranch Commerce Center (TRCC):

  The southernmost portion of the TRCC development area (approximately 2,000 acres) is located in the far northern extreme of the Grapevine USGS quadrangle within the Tejon Ranch area of designated critical habitat. All of the land is below an elevation of 2,000 feet above mean sea level, and condors historically did not, and currently do not, utilize this area of the valley floor to any significant extent. No nesting, roosting, or significant foraging habitat is located in this area, especially in light of the agricultural uses in this area, which do not support the grazing, hunting, or natural ungulate populations to provide a consistent food supply. As a result, the

TRCC project will have no cumulative effects to the conservation values of condor critical habitat.

(2) Grapevine:

Grapevine is a future conceptual development project that would occur within approximately 15,000 acres in the southern part of the San Joaquin Valley floor. No specific development proposals or applications have been made for this area or are planned within the foreseeable future. Under the Ranchwide Agreement, approximately 30% of the Grapevine area along the Tehachapi foothills and above 2,000 feet above mean sea level must be preserved as permanent open space, and only land on and adjacent to the valley floor areas could be potentially developed (see *Figure 4-10, California Condor Critical Habitat with Respect to the Ranchwide Agreement*). Subject to these limitations, approximately 11,000 acres of the designated critical habitat within Tejon Ranch could be affected by Grapevine project development. Of this, approximately 6,653 acres are considered suitable foraging habitat for condors. No nesting or roosting habitat occurs in this area and very little foraging by condors has been documented as occurring there. Given the small foraging areas involved and the preservation of approximately 96% of the Tejon Ranch critical habitat unit on that project site in perpetuity, any potentially foreseeable development within the Grapevine project area will have no significant cumulative effects on the conservation values of condor critical habitat.

- *Covered Lands preservation.* Under the proposed TU MSHCP, all development within the Covered Lands would be restricted to the TMV Planning Area and to the Lebec/Existing Headquarters Area adjacent to I-5. Approximately 66,117 acres of suitable condor foraging habitat would be preserved within Covered Lands, including 23,040 acres of the approximately 37,099-acre Condor Study Area. Approximately 46,045 acres of suitable foraging habitat within critical habitat and also within Covered Lands will be preserved. Consequently, approximately 94% of all Covered Lands within designated critical habitat would be preserved from development under the TU MSHCP and the Ranchwide Agreement and managed to avoid impacts to the condor.

4.2.3.6 CONCLUSIONS

The revised analysis of suitable foraging habitat and the expanded available information regarding the use of Tejon Ranch by the expanding population of condors has greatly deepened the analysis of the destruction or adverse modification of critical condor habitat.

In the previous Draft TU MSHCP, the conclusions regarding the destruction or adverse modification of critical habitat under the TU MSHCP rested on the opinion of the Condor Panel. In the opinion of the panel in the prior draft, the implementation of commercial and residential

Development Activities would not result in the destruction or adverse modification of designated condor critical habitat. No nesting, roosting, or airspace habitats would be directly affected by development. The panel also concluded that the conserved areas represent the most important areas to support the foraging functions of condor critical habitat within Tejon Ranch. Based on the preservation of 96% of the critical habitat unit on Tejon Ranch, the continuation of hunting within preserved areas of Covered Lands and elsewhere on Tejon Ranch, and other measures to be implemented by the TMV Project and the Ranchwide Agreement, the panel concluded that the conservation value of other condor critical habitat areas will not be destroyed or adversely modified because the historical foraging functions of the Tejon Ranch critical habitat area would be maintained. As a result, the panel also concluded that commercial and residential Development Activities would not cause the destruction or adverse modification of condor critical habitat within Tejon Ranch or any of the other eight critical habitat areas designated by USFWS.

In light of the additional data and analysis on the use of Tejon Ranch since that time, and the broader approach toward modeling the extent of suitable foraging habitat, as well as the analysis of food availability and needs conducted by USFWS, TRC concludes that the critical habitat overall will maintain its key conservation functions of providing a robust and consistent food supply in areas suitable for condor foraging and feeding on that food supply. As noted above, the preservation on TU MSHCP Mitigation Lands of approximately 66,117 acres of suitable foraging habitat, of which 46,045 acres are within critical habitat, as modeled using USFWS vegetation GIS models, and the continuation of ranch practices that provide a steady food supply, along with the confirmed availability of adequate food sources rangewide, demonstrate that the conservation functionality of the designated critical habitat would be more than adequately preserved not just for the current expanding population of condors, but also to support a recovered population spanning the historical range of the Southern California population. Therefore, it is TRC's conclusion that the approval of the TU MSHCP and the issuance of the ITP would not cause the adverse modification or destruction of condor critical habitat within Tejon Ranch within the meaning of FESA.

4.2.4 ANTICIPATED IMPACTS OF THE TAKING OF CALIFORNIA CONDOR

The wild population of the California condor is small and losses of individuals have a substantial impact on the survival and recovery of the species in the wild. The causes of individual losses, both historical and recent (e.g., poisoning due to ingestion of lead ammunition used in hunting), have been the result of activities not covered by this TU MSHCP or activities that are addressed by this TU MSHCP to avoid such impacts to California condors. Moreover, this TU MSHCP provides significant conservation measures (see Sections 4.4.2 and 4.4.3) for the California condor. No lethal take of the species is expected for the reasons previously discussed. Incidental take in the form of harassment due to capture and relocation of habituated condors over the full 50-year term of the ITP, while not expected, cannot be ruled out categorically. Accordingly, TRC proposes that the ITP will allow no more than four incidental non-lethal takes under FESA

in total from Covered Activities on Covered Lands for the term of the permit. However, such takes, should they occur, are not expected to adversely affect the overall population of the species as these individuals would be subjected to additional aversion training that is expected to result in avoidance of human structures and activities upon re-release of the bird. In addition, the removal of the habituated bird provides for the bird's own health and safety and ultimately assists in the recovery of the remaining wild birds that are utilizing the Covered Lands and might otherwise mimic the bird's detrimental behaviors.

4.3 BIOLOGICAL GOALS AND OBJECTIVES

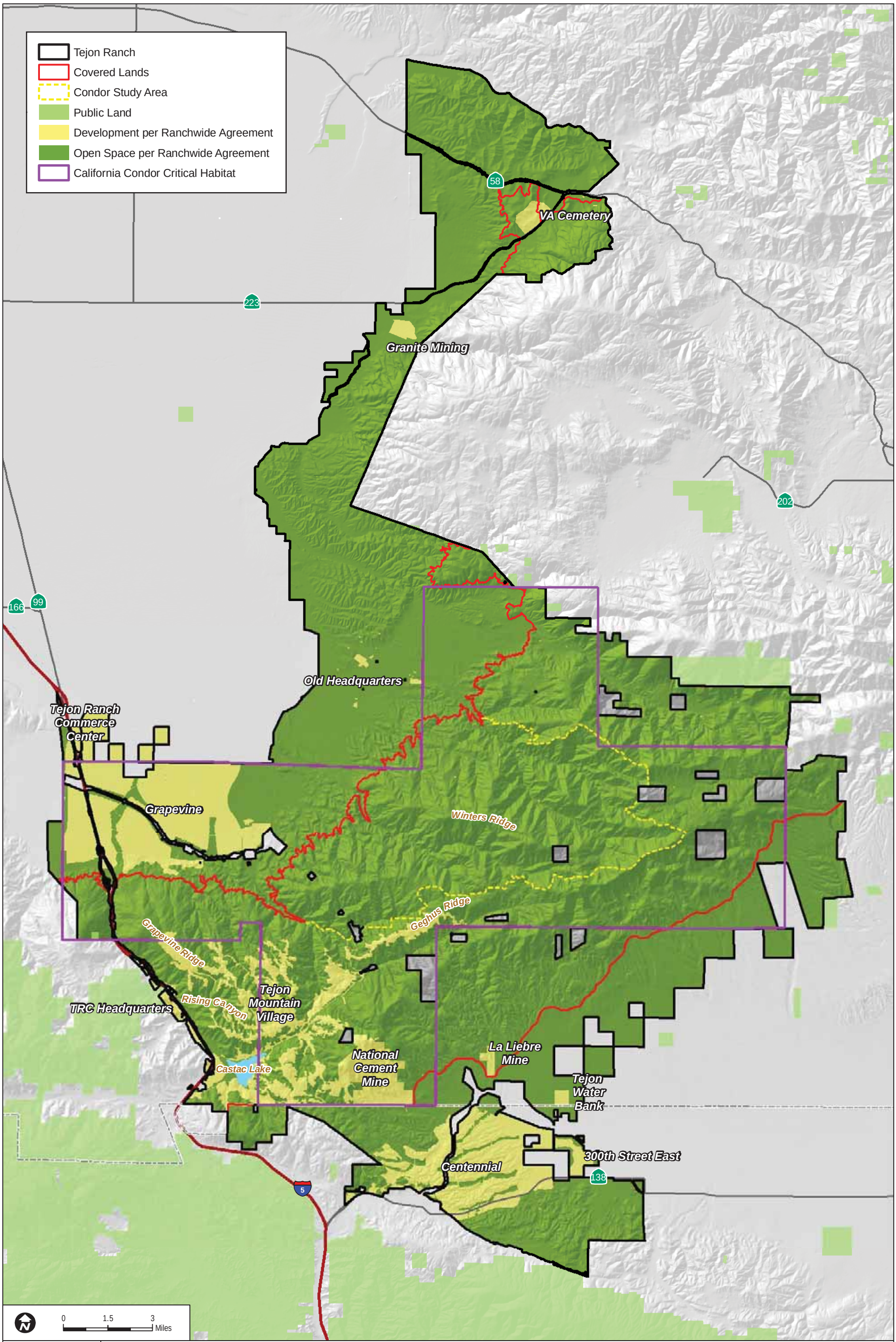
As part of the "five points" policy adopted jointly by USFWS and the National Marine Fisheries Service in 2000, habitat conservation plans must establish biological goals and objectives (65 FR 35242–35257). The purpose of the biological goals is to ensure that the operating conservation program in each habitat conservation plan is consistent with the conservation and recovery goals established for the species. The biological goals are also intended to provide to the ITP applicant an understanding of why these actions are necessary. These goals are developed based upon the species' biology, threats to the species, and the potential effects of the activities covered by, and the scope of, the habitat conservation plan. For the TU MSHCP, the biological goals for the California condor are:

(1) Enhancement of the conservation and recovery of the California condor in the wild by maintaining and enforcing a permanent ban on all its lands of the use of lead ammunition in order to diminish lead poisoning viewed as the principal obstacle to the species' recovery.

(2) Enhancement of the recovery of the California condor in the wild over the full range of geographic areas used by the California condor prior to its removal from the wild by maintaining and promoting California condor use of the ranch, particularly through the preservation of foraging and traditional roosting habitat within Covered Lands.

(3) Enhancement of the recovery of the California condor in the wild by establishment and management by USFWS of a new trap-and-release site in the Condor Study Area, as deemed appropriate by USFWS and if needed to support recovery efforts for the species.

(4) Enhancement of the recovery of the California condor in the wild through the maintenance of existing practices that support the condor population on Tejon Ranch, such as grazing and hunting.



SOURCE: California Resource Agency 2011
TRC 2007
USFWS 2011

FIGURE 4-10

California Condor Critical Habitat with Respect to the Ranchwide Agreement

Draft Tehachapi Uplands MSHCP

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4.4 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

Section 10(a)(2)(A) of FESA requires that a habitat conservation plan specify the measures that the holder of an ITP will undertake to minimize and mitigate to the maximum extent practicable the impacts of the "taking" of any listed fish or wildlife species as a result of activities addressed by the plan. The remainder of this section describes those measures TRC will implement to avoid, minimize, and mitigate the effects of Covered Activities on California condors. Avoidance and minimization measures are first discussed to address the following effects (discussed above) of Covered Activities on California condor: (1) exposure to microtrash; (2) disturbances to condors; (3) loss of foraging habitat; (4) collisions with artificial structures; and (5) habituation to human activities and artificial structures. Measures to mitigate unavoidable impacts are then addressed, followed by those measures that will contribute to the conservation and recovery of the California condor.

The FESA potential take addressed by these measures are the two forms of "take" as described in FESA Section 3(19) that are associated with "incidental take" under FESA Section 10(a)(1)(B): to "harm" and "harass." All take of California condor under state law is prohibited and avoided under the TU MSHCP.

The development on the Covered Lands over the life of the TU MSHCP and its associated ITP that Tejon Ranch proposes may be undertaken by TRC, its subsidiaries and affiliates, and third parties that are under lease to TRC or have become holders of certificates of inclusion as those terms are defined in Section 2.2.4.

4.4.1 MEASURES TO AVOID AND MINIMIZE IMPACTS

The following measures avoid and minimize potential impact on California condors as a result of proposed Plan-Wide Activities, including film production; passive recreation; repair, maintenance, and use of roads; and use of back-country cabins. These measures also avoid and minimize potential impacts on condors as a result of commercial and residential Development Activities within Covered Lands. These measures also contribute to Recovery Plan goals of implementing California condor information and education programs and minimizing California condor mortality factors.

Unless otherwise noted, all of the Condor Avoidance, Mitigation, or Minimization Measures listed below shall apply in perpetuity, run with the land, and shall be recorded in the County Recorder's office through a Memorandum of Permit (MOP) over the Covered Lands. The MOP shall be referenced in the recorded TMV Master Covenants, Conditions, and Restrictions (CC&Rs); recorded TMV Commercial CC&Rs; TMV and TRC access permits; certificates of inclusion; land sale documents; easements; lease agreements; and filming contracts within the Covered Lands.

4.4.1.1 MICROTRASH

(1) TRC or an included entity will prepare condor educational materials and implement a training program, such as printed brochures or other media, that will include information concerning the life history of the California condor, where condors potentially occur within the TMV Planning Area, prohibited behaviors related to condors such as the pursuit, capture, and harassment of individual condors, and other potential direct interaction with condors. The information shall also identify types of microtrash that could be ingested by condors and describe measures to eliminate microtrash at and near all construction sites, recreational areas, outdoor filming projects, roads, and back-country areas where human presence occurs. The education program will include training of key personnel at TRC, appropriate signage at trailheads or entrances to open space areas, and dissemination of pertinent information at on-site nature centers and other public areas. The educational materials will be disseminated to film crews, TMV Project construction and work crews, residents, guests, and visitors, particularly those engaging in recreational activities that could put them in close proximity to condors. Project land managers will be empowered to take action to prevent any such activity that would pose a threat to condors. This measure will be included in implementation documentation as appropriate under the MOP (e.g., CC&Rs for commercial and residential development and contracts with third-party filming entities).

(2) The following condor protection measures shall be implemented and documented as appropriate under the MOP (e.g., CC&Rs for commercial and residential development and contracts with third-party filming entities):

a. Master Developer's Construction Crews—All construction contracts let by the Master Developer shall include provisions requiring the general and subcontractors to provide construction workers with educational materials describing condor protection measures.

b. Residential or Commercial Construction Crews—All land sale contracts issued by the Master Developer shall include provisions requiring future residential and commercial property owners to provide construction workers with educational materials describing condor protection measures.

c. Film Crews—All TRC film crew contracts shall include provisions requiring the film companies to provide crew members with educational materials describing condor protection measures.

d. Residents—The Master CC&Rs shall include requirements for the property manager to distribute educational material describing condor protection measures on an annual basis. The CC&Rs shall also include enforcement language related to condor protection.

e. Resort Guests—The CC&Rs included in the resort, and any land sale contract or management agreement shall include provisions requiring the property management company to provide resort guests with educational materials describing condor protection measures.

f. Ranch Visitors—All Entry Permits for back-country areas will include educational material describing condor protection measures.

(3) TRC or an included entity will ensure that routine community maintenance activities include regular efforts to eliminate microtrash at and near all work sites, recreational events, filming projects, roads, and back-country areas where human presence occurs. All trash receptacles will be fitted with animal- and weather-resistant lids, will be regularly emptied, and will regularly be inspected by the USFWS-approved Tejon Staff Biologist. This measure will be included in implementation documentation as appropriate under the MOP (e.g., CC&Rs for commercial and residential development and contracts with third-party filming entities). The CC&Rs will include provisions authorizing the Master and Commercial Maintenance Associations, as relevant, to promulgate from time to time rules and regulations recommended by the USFWS-approved Tejon Staff Biologist to address microtrash and trash receptacles and to enforce such rules and regulations, which shall be consistent with and no less stringent than the conservation measures.

(4) The USFWS-approved Tejon Staff Biologist, or designated TRC employees or consultants, will be assigned to all film crews to enforce rules regarding discarding of microtrash items and will require a thorough daily clean-up by the filming entity during and immediately upon completion of all film shoots to eliminate any microtrash that may have accumulated.

4.4.1.2 DISTURBANCE OF CONDORS

(1) A condor educational curriculum, as provided above, will be created and disseminated that will include information concerning prohibited behaviors related to condors, such as the pursuit, capture, harassment, and all other potential direct interaction of the species.

(2) Construction workers, filming crews, TRC staff, and residential and commercial occupants and their guests will be required to cease any behavior which constitutes an attractive nuisance or otherwise presents an unreasonable and avoidable danger to California condors upon direction by TRC and in coordination with the USFWS-approved Tejon Staff Biologist. Pursuant to the MOP, documentation describing this prohibition will not list such behaviors in detail, but will provide examples and authorize

the USFWS-approved Tejon Staff Biologist, in consultation with USFWS, to respond to changing California condor behaviors, human activities, and other conditions with whatever restrictions necessary to provide the protection intended.

(3) Recreational activities, particularly organized events, and filming projects in areas where condors are known or expected to occur, will be closely regulated to minimize any effects that could disturb feeding or roosting condors. Such regulation can include the dissemination of information regarding condors through access permits, or in the case of film production, filming contracts, monitoring by the USFWS-approved Tejon Staff Biologist, and potential setbacks for localized roosting and feeding behaviors near a carcass location.

(4) Fireworks, explosions (louder than gunshots), or other abnormally loud noises are prohibited in the TU MSHCP Mitigation Lands unless the USFWS-approved Tejon Staff Biologist determines, in consultation with USFWS, that no condors are present or would be otherwise adversely affected by the fireworks, explosions, or noise. Additionally, fireworks, explosions (louder than gunshots), or other abnormally loud noises within the Condor Study Area are prohibited.

(5) Educational information as described above will be disseminated through access permits to guests and/or visitors to all back-country cabins regarding microtrash and appropriate behaviors if condors are encountered.

4.4.1.3 LOSS OF FORAGING HABITAT

Based on the revised condor suitable foraging habitat model and assessment, approximately 17,995 acres of suitable foraging habitat, including 12,015 acres in the designated critical habitat, are assumed to be directly or indirectly lost as a result of development associated with the TMV Project. However, large amounts of suitable foraging habitat, as modeled by USFWS, will be preserved as well as available food sources for condors on the ranch, as follows:

- Approximately 66,117 acres of suitable foraging habitat within the TU MSHCP Mitigation Lands and within Established Open Space that will remain as functional and viable foraging habitat for California condors.

- The approximate 37,000-acre Condor Study Area, including 23,040 acres of suitable foraging habitat, that was initially identified and delineated by the USFWS Condor Recovery Program and that has historically been a core habitat area for foraging and roosting by condors on Tejon Ranch and continues to be used, to a large degree, by released condors.

- An additional 83,818 acres of suitable foraging habitat preserved outside of Covered Lands under the Ranchwide Agreement.

- Continued grazing, under the Ranchwide Agreement, at the current level of 14,500 head of cattle on the remainder of Tejon Ranch.

- Continued hunting within all preserved habitat areas both within and outside of Covered Lands.

Along with wild carrion, continuation of hunting and grazing activities would continue to provide important food resources for condors using the ranch. Consequently, even with the loss of suitable foraging habitat associated with proposed development, there will be sufficient foraging habitat remaining on Tejon Ranch, including sufficient food from wild and domestic carrion on the ranch, to support condors that currently feed on the ranch as well as increased numbers of condors expected to forage there as the population expands.

4.4.1.4 COLLISIONS WITH POWER LINES AND UTILITY STRUCTURES

(1) Within the TMV Planning Area and Lebec/Existing Headquarters Area, design restrictions and review and approval processes are required for new vertical communication structures, as set forth below:

(a) TRC may install two towers (PA-2 and DF-1, as depicted in *Figure 4-9*)—one at approximately 68 feet in height (including antennae), and the other at approximately 65 feet in height (including antennae)—at two separate locations in the TMV Planning Area development envelope in order to provide suitable radio communication coverage. Both towers will incorporate condor anti-perching devices. For the PA-2 tower, TRC will consult with USFWS regarding the feasibility of locating the tower downslope (closer to trees), and agrees to do so to the extent feasible as determined by the County. The placement of any future communication towers to meet public safety requirements on Covered Lands is subject to USFWS review and approval. Such factors as tower height and construction design, historical and existing condor flight patterns over the ranch, and proximity to existing towers and structures shall be considered as part of this review. The towers shall be self-supporting (i.e., no guide wires shall be included as part of the design) and towers that provide the potential for perching shall be designed to include anti-perching devices suitable to deter condors from perching on the towers. The design and location of the anti-perching devices are also subject to the review and approval of USFWS.

(b) Smaller cell phone antennas, radio antennas, and other similar vertical communication structures are a permitted use within the development footprint as long as such structures/antennas adhere to the following criteria: (a) the structures shall be no higher than 10 feet above houses or buildings

(taller structures shall require the review and approval of USFWS), assuming the height limits for houses or buildings within the TMV Specific Plan Area vary between 35 and 45 feet; (b) the structures shall be installed within the TMV Planning Area development envelope and/or Lebec/Existing Headquarters Area; (c) if the structure contains surfaces suitable for perching by condors, the structure shall contain anti-perching devices on such surfaces to deter condors from perching; (d) the structures shall be visible so as to be clearly differentiated from nearby vegetation, other structures, and topography; and (e) the structures shall be located closer to trees where practicable and consistent with effective operations of communication systems. TRC shall confer with USFWS regarding the placement of the antenna and structure during preparation of tentative tract maps and corresponding grading plans.

(c) All communication tower sites shall be kept clean of debris, such as cable, trash, and construction materials.

(2) Within the Covered Lands, construction or maintenance by TRC or any third party under TRC's control of any new vertical communication or other utility structures outside existing antenna farms, excluding flexible or small antennas (e.g., whip antennas) under 20 feet in height, are prohibited; provided, however, that TRC may request, and USFWS shall review and may approve the design and location of any such vertical communication structures. Such factors as tower height and construction design, historical and existing condor flight patterns over the ranch, and proximity to existing towers and structures shall be considered as part of this review. The towers shall be self-supporting (i.e., no guide wires shall be included as part of the design) and shall be kept clean of debris, such as cable, trash, and construction materials. Towers that provide the potential for perching shall be designed to include anti-perching devices suitable to deter condors from perching on the towers. The design and location of the anti-perching devices is also subject to USFWS review approval.

(3) Within the Covered Lands, no wind farms will be constructed (and TRC agrees to expand the ban to all ranch lands) during the term of the ITP. Additionally, the prohibition on wind farms shall be maintained on the TU MSHCP Mitigation Lands in perpetuity. Notwithstanding the foregoing, individual wind turbine devices, which have the primary purpose to serve electrical generation needs on site, may be constructed following review and approval by USFWS based on USFWS's determination that the device and any associated structures and electrical lines are of a design and in a location that would not pose a threat to condors (e.g., vertical blade designs within screened cylinders may be appropriate, but open-blade designs likely to cause condor fatality in the event of a

collision are not appropriate). TRC also commits in perpetuity not to amend or terminate its negative easement right prohibiting wind farms on Gorman Ranch, outside Covered Lands.

(4) Within the Covered Lands, no new aboveground high-voltage tower or transmission line, or similar aboveground electrical transmission structure or line will be built by TRC. The following existing towers and lines may be relocated within 1,000 feet of existing lines as long as the potential for injury or harm to condors will be minimized with the installation of anti-perching devices: (1) a transmission line located within TMV Specific Plan Area 1 and 5; (2) a transmission line in the vicinity of the Lebec Road–I-5 Interchange; (3) an existing aboveground transmission line that runs east from I-5, just north of Castac Lake, may be temporarily relocated during construction, and then shall be undergrounded within the TMV Planning Area; and (4) smaller lines may be temporarily relocated during construction. Additional relocated transmission or distribution lines are prohibited unless approved by USFWS following review. All new transmission and distribution lines built by TRC will be placed underground.

(5) Within the Covered Lands, to the extent allowed by law and applicable contracts, TRC will require new agreements with entities that have the authority to place any new aboveground power, communication towers, or other utility lines on the ranch to place any such facilities only with the consent of TRC. Additionally, TRC will seek to enter into consensual agreements with those entities that may otherwise exercise such authority, both currently and in the future, without the consent of TRC. Such agreements will provide for measures to minimize the potential for injury or harm to condors, including requiring such structures to be fitted with anti-perching devices and located within existing utility corridors to the extent practicable. TRC may also encourage such entities, including entities installing underground utilities, to seek certificates of inclusion or become "lessees" under the ITP. These activities would not be Covered Activities unless they are located on Covered Lands and are conducted by TRC or by entities under the direct control of TRC for purposes of implementing the TU MSHCP and ITP that have become third-party lessees as defined in the Implementing Agreement or certificate-of-inclusion holders, or that operate under required or consensual agreements written or modified to give TRC control, including authority to require compliance with all applicable TU MSHCP and ITP requirements. Failure to obtain an agreement with an entity over which TRC does not have control will not be considered a violation of the TU MSHCP or the ITP.

4.4.1.5 HABITUATION TO HUMAN ACTIVITIES AND ARTIFICIAL STRUCTURES

(1) To minimize the potential for condor habituation within the TMV Specific Plan Area, measures relevant to the TMV Planning Area contained within Sections 4.4.1.1, 4.4.1.2,

and 4.4.1.4, above, are required under this TU MSHCP and shall be incorporated into the CC&Rs governing residential and commercial development. Additionally, the CC&Rs shall require that development on the ridges within the TMV Specific Plan Area (the east–west ridge above Rising Canyon; the western portion of Geghus Ridge; and on Grapevine, Middle, Squirrel, Silver, and Lola's Ridges) be designed and constructed to be consistent with the design guidelines and zoning standards contained in the Tejon Mountain Village Specific Plan (35 to 45 feet above finished grade) and will be of relatively low density.

4.4.2 MEASURES TO MITIGATE UNAVOIDABLE IMPACTS

As previously discussed, while the potential for California condors to be attracted and/or habituated to areas of human development has been greatly reduced due to recent changes in aversion training techniques in captive-reared condors prior to release, the potential of an individual or two to show signs of habituation cannot be ruled out. California condors demonstrating habituation behavior must be chased away from dwellings and are at further risk of injury at that time. Accordingly, such "deterrence" is conducted by persons trained for that purpose and permitted under Section 10(a)(1)(A) of FESA and under the Memorandum of Understanding between USFWS and CDFG that allows such interaction with California condors.

USFWS has determined that California condors that become attracted to human activity and that are not deterred from previous aversion training received while in captivity, and that are not discouraged by deterrence efforts after becoming habituated to human structures or activities, must be captured and relocated, undergo additional aversion training, and be re-released, or be permanently removed from the wild. Deterrence activities may include loud noises, arm-waving, use of restrained dogs or water hoses, and other non-injurious methods to scare a California condor away from a structure or area of human activity. The incidental take will have occurred when USFWS determines, from the report of its biologist or the USFWS-approved Tejon Staff Biologist, and after conferring with TRC, that the bird is habituated (i.e., all deterrence measures have failed) and must be captured and relocated or removed from the wild to a feeding center or other receiving facility, either temporarily or permanently. As previously discussed, the TU MSHCP proposes that such take could feasibly occur during the life of the TU MSHCP and proposes a maximum of four such takes. No lethal takes of the California condor are requested under an ITP.

As any such determination by USFWS that habituation behavior of a California condor places the bird at sufficient risk to require its capture and relocation or removal may result in the charging of TRC with a FESA incidental take proposed for authorization by the permit, TRC expects that, except in emergency situations or when immediate action is necessary to ensure capture, USFWS will first confer with TRC and provide the company with a full explanation of the necessity for relocation of the California condor or removal of the bird from the wild.

The following additional measures would be implemented to mitigate the taking of California condors:

(1) *Translocation of a habituated California condor*. Should any non-lethal incidental take, as described above, occur due to the failure of deterrence efforts, TRC commits to payment of the cost of capture, monitoring, relocating, or removal of the habituated bird. *Table 9-1, Estimated Costs for Care and Translocation of California Condor Associated with Potential Take*, contains an estimate of the likely capture, monitoring, relocating, or removal costs in 2011 dollars. However, notwithstanding the estimate, TRC will be responsible for payment of the full cost of such capture, monitoring, relocation, or removal.

(2) *Capture and care of an injured California condor*. Should any such FESA non-lethal incidental take of a California condor occur from a Covered Activity on Covered Land that results in a physical injury of a California condor, TRC will pay the full cost of capture by a USFWS biologist of the affected California condor on Covered Lands, any veterinary treatment for any injury to it, and its removal to a breeding center or receiving facility when USFWS determines that such actions are necessary as result of Covered Activities. *Table 9-1* contains an estimate of the likely capture and care (over a 6-month period) of a bird in 2011 dollars. However, notwithstanding the estimate, TRC will be responsible for payment of the full cost of such capture and care.

4.4.3 MITIGATION MEASURES AND MEASURES TO CONTRIBUTE TO CONSERVATION AND RECOVERY OF THE CALIFORNIA CONDOR

The primary mitigation measure under the TU MSHCP is the permanent protection of the TU MSHCP Mitigation Lands for the benefit of the condor and Other Covered Species. The TU MSHCP Mitigation Lands shall be permanently protected by conservation easement or other appropriate deed restriction as follows:

(a) Dedicated conservation of the Initial Mitigation Lands would be phased according to the terms of the Implementing Agreement as follows. A conservation easement is required to be recorded on the 47,871 acres of Initial Mitigation Lands, which include the 37,099-acre Condor Study Area portion of the Established Open Space and a 10,722-acre portion of the TMV Planning Area Open Space, prior to grading of the TMV Project. The obligation to record a conservation easement over the TMV Planning Area Open Space portion of the Initial Mitigation Lands will be extended for up to 5 years provided that an MOP and a memorandum of agreement to record a conservation easement is recorded prior to the grading of the TMV Project.

(b) The Remaining Mitigation Lands will be permanently conserved in accordance with the terms of the Implementing Agreement as follows. Dedicated conservation

easements are required to be recorded over the 56,423 acres of Established Open Space following the schedule set forth in the Ranchwide Agreement, but in no event shall the recording of easements extend beyond the permit term. The 12,229 acres of the TMV Planning Area Open Space within the Remaining Mitigation Lands shall be conveyed by conservation easement or otherwise restricted in a form approved by the Service as the TMV Planning Area is developed and tentative maps are approved, but in no event shall the recording of easements extend beyond the permit term.

4.4.3.1 CONFIGURATION, ESTABLISHMENT, AND MANAGEMENT OF THE CALIFORNIA CONDOR STUDY AREA WITHIN COVERED LANDS

Proposed open space on Covered Lands includes 93,522 acres of Established Open Space and 23,001 acres of TMV Planning Area Open Space. These are the TU MSHCP Mitigation Lands. An additional 12,795 acres of open space (Existing Conservation Easement Areas), acquired pursuant to the Ranchwide Agreement, will be permanently protected as open space. Together, these areas would occupy about 91% of Covered Lands. The Condor Study Area was configured within this proposed open space to encapsulate historically important habitat, including the only known traditional roost site (on Winters Ridge) as well as what was considered at the time "core foraging habitat" on the ranch. However, recent data, including the USGS report (Johnson et al. 2010), indicated that while the Condor Study Area is still heavily used by condors, foraging occurs in areas of suitable habitat throughout the Covered Lands. The following discusses the history and methods by which the Condor Study Area was configured and established as well as proposed management of the Condor Study Area to contribute to the conservation and recovery of the condor.

4.4.3.1.1 CONFIGURATION AND ESTABLISHMENT OF THE CONDOR STUDY AREA

The Condor Study Area was initially established to include the lands on the ranch that the California condor historically used most frequently (as depicted on *Figure 4-6*). The Condor Study Area covers those lands totaling 37,099 acres in the Tunis and Winters Ridge area, and TRC has agreed to permanently preclude development within the Condor Study Area as part of the conserved lands under the Ranchwide Agreement as of June 2008. Additionally, under the TU MSHCP, the Condor Study Area shall be permanently conserved by a conservation easement to be reviewed and approved by USFWS and recorded as part of the Initial Mitigation Lands (see *Figure 1-3, Proposed TU MSHCP Mitigation Lands*) per the terms of the Implementing Agreement. Existing uses within the Condor Study Area may continue consistent with the provisions of this TU MSHCP, and in compliance with the terms of the Ranchwide Agreement.

The Condor Study Area originally was designed to take into account historical information, the experience of California condor experts, and both telemetry and historical data points. The final configuration evolved over several years (see *Figure 4-11, Condor Study Area*), but it is

important to understand how the shape and location of the Condor Study Area were determined in order to ensure the best possible configuration given the areas of the ranch most frequently used by California condors and where Covered Activities would occur.

The first Condor Study Area configuration was created by former USFWS Condor Recovery Coordinator Bruce Palmer in 2002. Mr. Palmer prepared a report on the significance of the ranch to California condor recovery (USFWS 2002a) that served as a basis for delineating the original Condor Study Area of 37,099 acres. The Condor Study Area expanded on an area formerly known as the "Section 4C Area" to include Tunis and Winters Ridge and much of the highest elevations on the ranch. The intent of Mr. Palmer's effort was to capture both the most likely feeding areas (i.e., high, exposed ridgelines with prevailing updrafts) and roosting habitat (i.e., tall trees and high ridges with prevailing updrafts). The configuration also incorporated some of the early telemetry data collected from condor AC-8, the last female taken from the wild. This configuration was the basis for all of the TU MSHCP negotiations that followed for the next 4 years. TRC designed the TMV Project to avoid the Condor Study Area that Mr. Palmer delineated and established setbacks to provide a buffer between development and the Condor Study Area to minimize potential conflicts between condors and human activity.

Since the original delineation of the Condor Study Area, USFWS generated new telemetry data (gathered after Mr. Palmer's first efforts) and reviewed historical data detailing California condor activity on the ranch. The historical data cover the period from 1910 through 1987, although the earliest data from the ranch are from 1967. Historical data end in 1987 when the last wild California condor (AC-9) was taken into captivity. Historical data did not have the benefit of the precision afforded by radio transmitters, satellite tracking, or GPS units. Instead, observational records that identified specific locations were converted into coordinates that could be integrated into a GIS dataset and mapped. In contrast, the telemetry data gathered between 2000 and 2005 rely on readings from transmitters carried by individual California condors and recorded by mobile tracking units, satellites, and GPS transceivers. By triangulation or direct readings, biologists recorded the precise locations of California condors.

TRC and USFWS GIS experts mapped the data in their entirety to see whether any patterns emerged. In general, the data revealed that California condor activity was concentrated in several areas well-known to California condor experts from their experiences with the birds both prior to the birds' removal from the wild and since reintroductions began in 1992. One of these areas was Tejon Ranch; however, due to scale, the original mapping did not discern specific condor activity on the ranch to a level for which definitive condor suitability boundaries could be identified.

TRC next mapped only the telemetry data, with the thought that these were the most precise data available. This map showed a definite pattern of use of the ranch by California condors, but it only accounted for activity from 2000 through 2005 and did not include historical patterns. USFWS advised TRC that, while the telemetry data were more precise, the majority of the data

were from two California condors, AC-8 and AC-9. One of the goals of the reintroduction program, particularly with regard to the "old" birds that were part of the wild flock before their capture, is to reestablish historical movement and land use patterns. USFWS advised that, while the activities of AC-8 and AC-9 would be useful for that purpose, limiting the mapping to the telemetry data introduced a bias toward these two individuals that could not be ignored, and which would have to be balanced with historical data for other birds.

TRC's next step was to map both the telemetry data from 2000 to 2005 and the historical data from 1967 through 1987. A pattern emerged from the telemetry data and the historical data showing that the Condor Study Area that Mr. Palmer delineated in 2002 was fairly accurate as to where California condors were predominantly using the ranch. For most of the historical data, Cogan (1993) assigned an activity code using a complex system of numbers. For example, all foraging fell into category 30,000. Within that category, observers discerned (and Cogan coded) whether the food was bait set out by researchers or natural carrion, even down to the type of animal (e.g., deer carcass versus dead ground squirrel). In discussion with USFWS's current Condor Recovery Coordinator, Jesse Grantham, USFWS decided that some activities were more vital to conservation of, or reflective of the value of the land to, California condors than other activities. USFWS concluded the foraging/feeding was the most important behavior, followed by roosting/perching (nesting would have been first, but California condors have never been recorded as nesting on the ranch).

Continuing to use data provided by USFWS, TRC then created a new map with unique identifiers for telemetry data for AC-8, telemetry data for AC-9, telemetry data for all other California condors fitted with telemetry devices, historical data points for foraging/feeding birds[4], and historical data points for roosting/perching birds. One consequence was that the number of historical data points that fell into the Covered Lands dropped from 1,121 to 412 (i.e., data for preening, flushing, etc., were no longer mapped). The total number of telemetry data points remained the same (282).

[4] Foraging/feeding data accounts for both natural and baited feeding events. The baited feeding events outnumber the natural feeding events, however, the baited stations reflect where California condors were known to forage and researchers took advantage of the birds' tendency to favor certain areas for feeding. This means that baited or natural, the historical data points for foraging/feeding indicate favored areas for that activity.

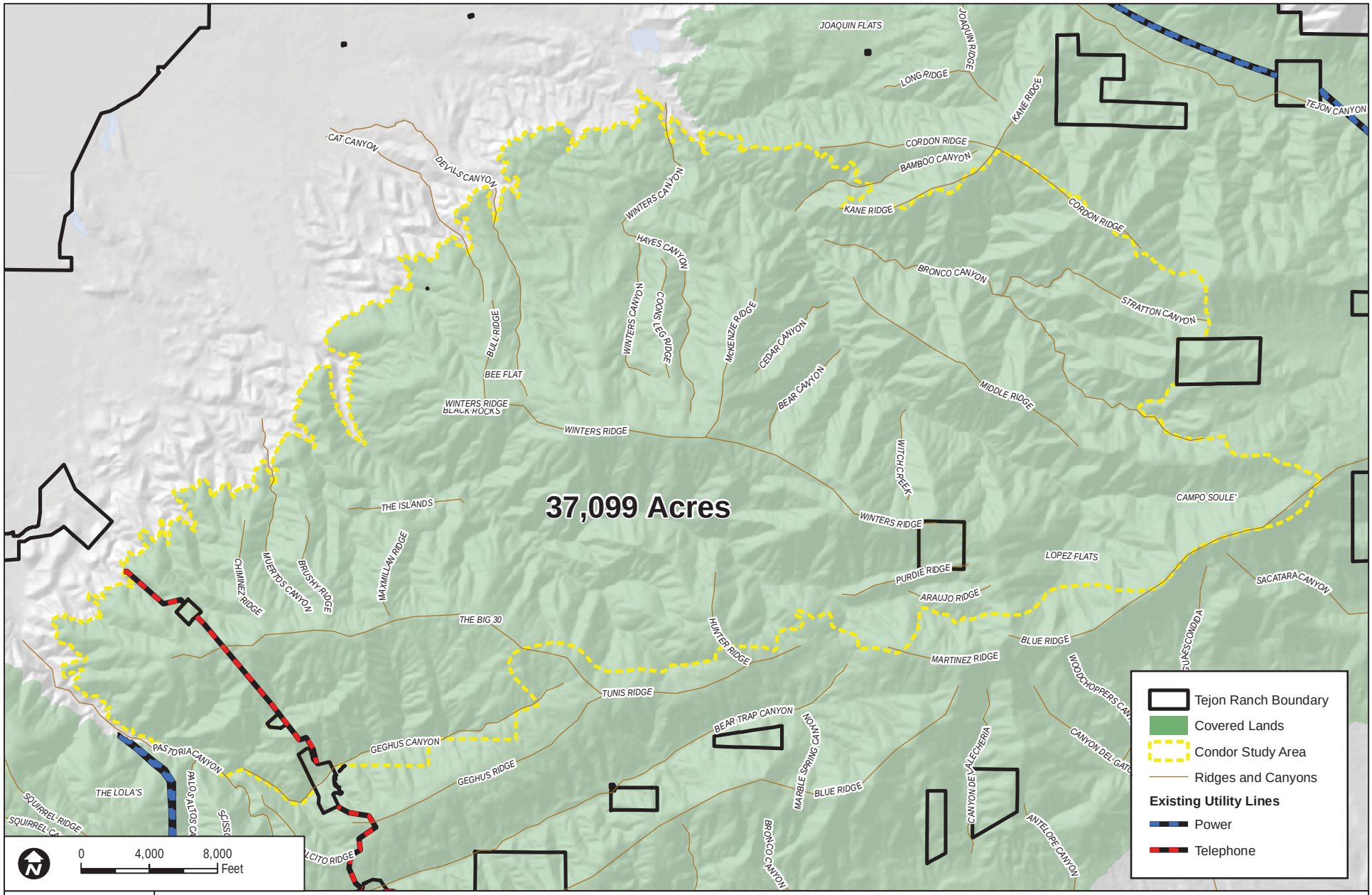

FIGURE 4-11

Condor Study Area

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The new map with the unique identifiers showed that the original Condor Study Area configuration drawn by Mr. Palmer still effectively captured most of the recorded condor occurrence data. What also became apparent was that there were historical data points for foraging/feeding and roosting/perching that were close to the boundary, but were not captured by the original configuration of the Condor Study Area, and some areas were included in the original Condor Study Area where no historical data and very few telemetry data points occurred. TRC decided to explore whether it could reconfigure the Condor Study Area to capture a greater percentage of both the telemetry and historical data points. By shifting a portion of the Condor Study Area to the east and extending some of the boundaries, an alternative to the original Condor Study Area configuration was created. As a final check, this alternative to the original Condor Study Area was reviewed by USFWS current California Condor Recovery Coordinator Jesse Grantham, who has extensive experience with both the present use and the historical use of the ranch by California condors. Mr. Grantham's experience with California condors suggested that the western portion of the original Condor Study Area delineation (which was retained in the revised alternative) had greater significance as foraging habitat than is reflected by the data because foraging/feeding events were rarely witnessed historically (for the entire Covered Lands, only 13 natural feeding events were recorded between 1967 and 1987). Data for the baited feeding stations were more abundant (89 for the same period and area) most likely because observers were monitoring baited feeding sites. Perching/roosting data are naturally more abundant because the birds spend more time roosting and may stay in one location for extended periods, increasing the odds that they will be observed or recorded by satellite, GPS, or radiotelemetry while they are stationary.

Recent condor GPS data indicate a greater number of condors using a much larger portion of Tejon Ranch beyond the boundaries of the Condor Study Area. While no particular area of Tejon Ranch can be characterized as the best or most important foraging habitat for the California condor because the condor data sets do not provide information that is sufficient to provide qualitative information about the specific areas where condors were located at the time the data were generated, the most recent data indicate that the Condor Study Area still contains a substantial amount of suitable foraging habitat (approximately 23,040 acres), as well as the traditional roost sites that were historically and are currently used by the species. Thus, while widespread foraging activity occurs across the ranch, condors continue to use important traditional roost locations on Winters Ridge within the Condor Study Area. These specific locations within the Condor Study Area are particularly important, and are not found in other locations on the ranch.

4.4.3.1.2 CONDOR STUDY AREA MANAGEMENT

To help protect the Condor Study Area, specific management requirements apply:

(a) The Condor Study Area will be managed by the Conservancy in accordance with the TU MSHCP and the guidance of the RWMP, which will be subject to USFWS review and approval for consistency with the TU MSHCP and any recorded conservation easement and FESA. Public access to and use of the Condor Study Area authorized by the Public Access Plan will be controlled, monitored, and enforced by TRC or the Conservancy. Two back-country cabins currently exist on the Condor Study Area. Those cabins may be maintained, improved, repaired, replaced, or reconstructed in their existing locations, within their existing footprints and without substantial increase in height. No other back-country cabins may be constructed or relocated to the Condor Study Area.

(b) Access to the Condor Study Area in the Public Access Plan will be developed in consultation with, and must be approved by, USFWS. The Public Access Plan will be subject to USFWS review and approval in perpetuity and include parameters for human use of the Condor Study Area, including but not limited to the types of uses allowed and disallowed, the level of use intensity, and any seasonal restrictions, if warranted. Measures likely to be incorporated into the program include requiring visitors to register before entering, restricting the number of visitors per day/week/month depending upon California condor use of the Condor Study Area as determined by the USFWS-approved Tejon Staff Biologist and USFWS, and prohibiting future access by those persons who do not follow the rules or comply with the program. TRC or the Conservancy will be responsible for implementing the program and measures.

4.4.3.2 ESTABLISHMENT OF SUPPLEMENTAL FEEDING/TRAP-AND-RELEASE SITES

Prior to the recent California condor management era, Wilbur (1978b) showed that California condors could easily be attracted to artificial food sites, and feeding stations have long been in operation in several Old World vulture conservation programs. Supplemental feeding continued to be an integral part of the recovery of the species to serve not only as a means to trap and release condors but also as a means to reduce the likelihood of injury to or mortality of California condors from lead or other poisoning by offering the birds a safe alternative to feeding on contaminated carcasses. However, although lead-contaminated food continues to be a threat to condors, recent data indicates supplemental feeding has not been shown to be an effective tool to facilitate the avoidance of lead poisoning in condors. Despite the regular availability of supplemental food (supplied by existing feeding and trapping sites), and with the large increase in released condors over the last several years, condors are foraging over hundreds of miles, throughout much of their historic range, and are finding their own food. As a result of this natural behavior, they continue to be exposed to carcasses contaminated with lead.

Currently, USFWS provides supplemental feeding primarily to support two major condor recovery actions: 1) the annual release of captive reared juveniles, since newly released condors have no parents to supply them with food and need extra care to increase the likelihood of their survivorship; and 2) biannual trapping of the free-flying population in order to monitor for lead exposures and to maintain or replace GPS transmitters. Supplemental feeding is not expected to be permanent. However, under current and reasonably foreseeable future conditions, USFWS anticipates that the use of supplemental feeding to facilitate trapping and to serve as a food source for recently released juveniles will continue and possibly expand prior to its discontinuation. Any lead-free carcasses, including supplemental carcasses provided by the Condor Recovery Program, would continue to benefit individual condors and the recovering population until lead contamination is no longer a threat.

There is a possibility that supplemental feeding sites within preserved areas of the ranch will be needed in the future in support of the Recovery Plan, as determined by USFWS. Currently, no such feeding site is planned. If such supplemental feeding sites are determined to be needed by USFWS, USFWS will consult with TRC on the location, design, and operation of such feeding sites.

4.4.3.3 ESTABLISHMENT/ENFORCEMENT OF A PERPETUAL RANCHWIDE BAN ON LEAD AMMUNITION

USFWS and the California Condor Recovery Team believe that lead poisoning of California condors from feeding on the carcasses of animals shot by hunters is one of the principal obstacles to conservation and recovery of the species.

After discussions with USFWS, TRC announced on February 23, 2007, that, effective January 1, 2008, it would establish and enforce a ban on lead ammunition. The ban is perpetual and, therefore, survives the life of the ITP. It also covers the entire 270,000 acres of the ranch, not just the Covered Lands. The use of lead ammunition on Tejon Ranch has been banned since January 1, 2008. The ban applies to all hunters registering with TRC's Wildlife Management Operation for hunting access licenses, whether they hunt through a hunting membership, a group hunt, or a guided hunt. California subsequently enacted the Ridley-Tree Condor Conservation Act, which bans lead ammunition in the range of the California condor effective July 1, 2008.

To ensure that the ban on lead ammunition will successfully contribute to reducing the incidence of lead poisoning to condors, TRC will continue to implement the hunter awareness and enforcement program. The components of the program include the following:

- All hunting permittees must acknowledge and sign a notice and agreement that addresses the lead-ammunition ban and the protection of the California condor. By signing the agreement, hunting permittees acknowledge that the possession or use of ammunition containing lead is prohibited and that violation of this prohibition will result in immediate expulsion from the ranch, permanent termination of all future hunting privileges, and liability to TRC and state

and Federal governments. The agreement also clarifies protections that the condor has under state and Federal laws, penalties for violations of these laws, and the application of these laws to all hunting permittees.

- All hunting permittees must acknowledge and sign an agreement that defines hunting rules and regulations on Tejon Ranch. The agreement reiterates that the possession or use of ammunition containing lead is prohibited and that violation of this prohibition will result in immediate expulsion from the ranch, permanent termination of all future hunting privileges, and liability to TRC and state and Federal governments. The agreement includes rules and regulations that, among other things, prohibit shooting at large birds; require that gut piles and carcasses, unless transported off the ranch or are suspected to contain lead, shall remain in place on the ranch; require the removal of all litter, trash, and microtrash; and prohibit any behavior that could be construed as a take of the condor.

- All hunting permittees must acknowledge and sign a hunting permit that reiterates that the possession or use of ammunition containing lead is prohibited and that violation of this prohibition will result in immediate expulsion from the ranch, permanent termination of all future hunting privileges, and liability to TRC and state and Federal governments, and that states that the permit is not valid unless the notice and agreement regarding lead ammunition and protection of condor and the hunting rules and regulations agreement have been acknowledged and signed. The permit also notices that the hunting permittee is bound to all conditions within each of these agreements.

As indicated through this program, enforcement is stringent and TRC operates under a no-tolerance policy. The education and enforcement program is also expected to include workshops and/or seminars that educate hunters with respect to the impacts of lead on condors and that will give hunters an opportunity to experiment with non-lead ammunition alternatives. The hunter education and enforcement program will be implemented by the Wildlife Management Operation at TRC. The ban on use of lead ammunition applies not only to hunters, but also to all TRC employees or third parties who are engaged in any animal damage control or nuisance abatement activities on the ranch. In other words, except for law enforcement, the ban is universal as to all persons who enter the ranch.

To ensure that the lead ammunition ban remains in place and effective in perpetuity, the conservation easement required for TU MSHCP Mitigation Lands will require implementation of the lead ban after expiration of the permit term.

4.4.3.4 FUNDING FOR ADDITIONAL GPS TRANSMITTERS FOR CALIFORNIA CONDORS

TMV LLC will provide funding to install additional GPS satellite tracking transmitters on condors currently not carrying such transmitters to allow for the continuous, real-time

monitoring of the location of wild, free-flying California condors. Specifically, $156,000 will be provided to purchase GPS transmitters prior to the issuance of any grading permits affecting suitable condor foraging or roosting habitat, and then $26,000 will be provided to assist in funding operations, maintenance, and/or replacement every year afterward for a total of 10 years. This system will enable the immediate location of birds that are not moving relative to the ground, which usually indicates than an injury or illness has occurred. The prompt retrieval of injured or sick birds will allow for the rapid implementation of appropriate medical care or rehabilitation, actions that have saved the life of several condors in the past.

4.4.3.5 HIRING OF A FULL-TIME BIOLOGIST

Prior to initiating construction of the TMV Project in the Covered Lands, and for the duration of the ITP term, TRC will retain the service of a full-time biologist ("Tejon Staff Biologist"), as defined in the "Definitions" section preceding *Section 1, Introduction and Background,* to perform the functions described in this section. The hiring will occur no later than 30 days prior to initiation of the start of construction for which all entitlements have been secured and any litigation that might impede or prevent the construction has been concluded without such a result. Promptly after issuance of the ITP, TRC will contract with a qualified third party, whose qualifications are approved by USFWS, to perform these functions until the USFWS-approved Tejon Staff Biologist is retained.

The USFWS-approved Tejon Staff Biologist's primary function will be to assist in minimizing and mitigating any interactions between humans and California condors within the Covered Lands and in administering the avoidance, minimization, and mitigation measures pertaining to condors within the TU MSHCP. The USFWS-approved Tejon Staff Biologist will not be required or allowed to handle or interact with California condors other than incidentally or in emergency situations, and only if he or she has been issued by USFWS a scientific permit under Section 10(a)(1)(A) of FESA, and is permitted to do so by applicable Federal and state law; handling of California condors is the responsibility of USFWS. The USFWS-approved Tejon Staff Biologist will be responsible for performing, either directly or through direct supervision of assigned staff, the following functions related to California condors:

(1) Perform the monitoring and reporting responsibilities of TRC in the TU MSHCP.

(2) Perform the enforcement responsibilities.

(3) For the purpose of minimizing contact and interaction between humans and California condors, (i) coordinate with retained environmental education specialists to prepare guidelines and educational programs, reviewed and approved by USFWS, for proper behavior by persons who buy real estate or visit the developments constructed within Covered Lands, or who are permitted to use the Condor Study Area; and (ii) include

descriptions of such guidelines and programs in pamphlets or other documents which are to be distributed to such persons.

(4) Monitor use of the Condor Study Area by adjacent homebuyers and lessees and facilitate communication and coordination among USFWS, TRC, and the Master Owner Association to ensure that allowed uses of the Condor Study Area do not compromise the value of that area as a California condor safe zone and for traditional and historic ranch uses.

(5) Conduct educational programs and disseminate educational materials concerning the California condor to homebuyers and visitors to any mountain development.

(6) Coordinate with TRC's Wildlife Management Operation on implementation of the hunter education/enforcement program regarding the lead-ammunition ban and condor protection.

(7) Assist USFWS with assessment and implementation methods to discourage California condors' use and visitation of human communities and dwellings on the Covered Lands. The USFWS-approved Tejon Staff Biologist will contact USFWS immediately if habituation behavior by California condors is witnessed or reported. The discouragement measures, including "hazing," will be implemented by USFWS, in consultation with TRC. However, the USFWS-approved Tejon Staff Biologist will not undertake any hazing activity under this paragraph unless and until he or she has applied for and received a scientific permit from USFWS under FESA Section 10(a)(1)(A) that covers such activity, and any incidental take that may result, and USFWS and TRC have determined that he or she may do so in accordance with all applicable Federal and state law (including approval for inclusion in a Memorandum of Understanding—if and to the extent required—between USFWS and CDFG that allows such interactions with California condors despite their status as a Fully Protected Species under state law).

(8) Assist in communications with USFWS regarding potential violations of the TU MSHCP, FESA, or any recorded conservation easement or CC&Rs.

USFWS may propose specific, additional functions of the USFWS-approved Tejon Staff Biologist that it believes would be appropriate and consistent with the concepts set forth above and applicable legal requirements.

4.4.3.6 OTHER CONSERVATION OR CONSERVATION-RELATED MEASURES

(1) Within 60 days of the effective date of the TU MSHCP's associated ITP, TRC will designate a point of contact, who may be a TRC employee, a contractor, or similar agent under the direct control of TRC, and who will act as a coordinator for all California condor management issues arising on the ranch with respect to the obligations of TRC under this TU MSHCP. The specific responsibilities of the TRC contact will include the

following: (i) ensuring that measures proposed by TRC in this TU MSHCP further California condor conservation and are regularly and properly implemented in a timely manner; and (ii) acting as a liaison between USFWS and TRC with respect to all conservation program activities and requirements under this TU MSHCP. Immediately upon selecting the TRC contact person, TRC will inform USFWS, in writing, of the name, address, and telephone number of that person. TRC will also immediately inform USFWS, as necessary, whenever the identity of the TRC contact person changes, or when the duties of that person are assumed by the USFWS-approved Tejon Staff Biologist (as described in Section 4.4.3.5).

(2) TRC will distribute to its employees a disclosure sheet on California condors that: (i) describes the California condor's protected status; (ii) explains TRC's role in California condor life history and the California Condor Recovery Program; (iii) describes how to recognize and identify California condors that may be using the ranch; (iv) specifies all obligations under the TU MSHCP which may affect TRC employees, including the obligation to report any dead or injured California condors to supervisors or the TRC contact person (described in paragraph (1)), who will inform USFWS; (v) requires the reporting of all California condor sightings made by TRC personnel to a suitable person (e.g., the TRC contact person or USFWS-approved Tejon Staff Biologist); and (vi) provides any further information that may be relevant to California condor protection on the ranch and requirements under the TU MSHCP. TRC must prepare and distribute the employee disclosure sheet within 60 days of the effective date of the ITP. TRC will provide an advance copy of the proposed employee disclosure sheet to USFWS for review and concurrence. TRC, in consultation with USFWS, will also revise the employee disclosure sheet from time to time as appropriate, to ensure it presents accurate and up-to-date information.

(3) TRC will also implement such other conservation programs for the California condor as are mutually agreed to by TRC and USFWS.

4.5 MONITORING AND REPORTING

4.5.1 MONITORING MEASURES

Federal permitting regulations at 50 CFR 17.22 require that a habitat conservation plan specify what steps the ITP applicant will undertake to monitor the impacts of any take of the Covered Species allowed under the permit. The likelihood of any take of California condors under this TU MSHCP is expected to be extremely low because the Covered Activities are designed to avoid and/or minimize areas and practices that could harm or harass California condors. Any take whatsoever would be the result of a decision by USFWS to capture a bird because habitat modification has allowed it to habituate to human dwellings or activities and/or it has injured itself from such habituation. For this reason, and because USFWS already performs extensive

California condor monitoring functions (including tracking of California condor movements with radio collars and reacting quickly when any failure of an individual California condor to move as expected is detected), monitoring needs under this TU MSHCP are relatively modest. Nevertheless, to ensure that anticipated avoidance, minimization, and mitigation measures are fully implemented, impacts to California condors on the ranch have been anticipated correctly, and the avoidance, minimization, and mitigation measures are working as predicted, TRC will implement the compliance and effectiveness monitoring measures described in Section 4.5. The monitoring will be conducted by the TRC contact person appointed pursuant to Section 4.4.3.6, or, upon his or her appointment pursuant to Section 4.4.3.5, the USFWS-approved Tejon Staff Biologist, or a TRC employee or contractor under the direct supervision of the TRC contact person or USFWS-approved Tejon Staff Biologist.

4.5.1.1 COMPLIANCE MONITORING

Compliance monitoring is intended to ascertain whether the holder of an ITP is implementing the avoidance, minimization, and mitigation measures provided in the habitat conservation plan. Consequently, the compliance monitoring is based directly upon those measures set forth in Section 4.5, as failure to implement the measures could result in suspension of the ITP.

4.5.1.1.1 Monitoring for Identified Avoidance/Minimization Measures

Exposure to Microtrash

(1) TRC will inspect all lessees and included entities engaged in Covered Activities annually to ensure that they are complying with the restrictions set forth in Section 4.4.1.1 and the leases or certificates of inclusion for the protection of California condors.

(2) As described in Section 4.4.1.1, a TRC employee will be assigned to be with all film crews, construction sites, and large recreational events anywhere within Covered Lands to ensure compliance with rules regarding discarding and cleanup of microtrash items.

(3) TRC will inspect annually all printed and other materials associated with the condor educational curriculum described in Section 4.4.1.1, and any such materials distributed to others working, living, or recreating on, or using or visiting the ranch that TRC deems necessary to meet the requirements of this TU MSHCP to determine that the materials provided convey accurately the requirements of the TU MSHCP. TRC will inspect at least quarterly all signage placed on the ranch to notify users, residents, and visitors of California condor–related activities and restrictions.

Disturbances to Condors

(4) TRC will inspect all lessees and included entities engaged in Covered Activities annually to ensure that they are complying with the restrictions set forth in Section 4.4.1.2 and the leases or certificates of inclusion for the protection of California condors.

(5) A TRC employee will be assigned to all organized recreational events that are scheduled to occur within habitat frequented by condors to ensure compliance with rules regarding behaviors that could adversely affect condors. At a minimum, the employee will review all printed information regarding condors that is disseminated prior to any organized events that will take place in or adjacent to areas where condors may feed or roost.

(6) TRC will inspect all printed and other materials and signage associated with the condor educational curriculum as described in compliance measure (3) above.

Collisions and/or Habituation with Artificial Structures

(7) TRC will inspect proposals for and the placement of any new aboveground antennae, cell towers, or other utility structures that are Covered Activities to ensure that they are sited and designed in accordance with the restrictions set forth in Section 4.4.1.4.

(8) TRC will review proposals for home designs in areas frequented by condors to ensure compliance with the design guidelines and zoning standards contained in the Tejon Mountain Village Specific Plan referenced in Section 4.4.1.5.

4.5.1.1.2 Monitoring for Identified Mitigation Measures for Unavoidable Impacts

(9) TRC will confer with USFWS regarding any identified take of condors due to habituation and regarding the necessity for relocation of the California condor or removal of the bird from the wild to ensure compliance with the guidelines and measures set forth in Section 4.4.2 regarding unavoidable take.

4.5.1.1.3 Monitoring for Management of Condor Study Area

(10) The USFWS-approved Tejon Staff Biologist will tour the Condor Study Area regularly, depending on activities that are occurring, but at a minimum once per month to ensure compliance with all requirements related to, and restrictions on, use of the Condor Study Area as set forth in Section 4.5.1.2.

(11) TRC will inspect annually all printed and other materials, including provisions in the resource management plan, and other methods employed pursuant to this TU MSHCP, to instruct users of the Condor Study Area concerning the requirements for use of the Condor Study Area set forth in Section 4.4.3.1 to determine that the materials and methods are provided or performed and convey accurately the requirements of the TU

MSHCP. TRC will inspect at least quarterly all signage placed on the ranch to notify users, residents, and visitors of California condor–related activities and restrictions.

4.5.1.1.4 Monitoring for Establishment of Feeding Stations and Trap Sites

(12) If trap/release sites are determined by USFWS to benefit ongoing condor recovery efforts on a temporary or otherwise basis, TRC, the Conservancy, and USFWS will meet, as provided in Section 4.4.3.2, to determine:

(a) The specific objectives and needs of the supplemental feeding program and trapping sites on the Covered Lands for the upcoming year and compliance with these objectives; and

(b) The specific supplemental feeding activities and measures, and their location(s), that will be implemented to accomplish those objectives and needs.

4.5.1.1.5 Monitoring for Enforcement of Lead Ban

(13) TRC will conduct random inspections of all hunting permittees on the ranch at any given time to ensure that all hunters have valid hunting permits that include acknowledging and signing notices and agreements regarding the ban on lead ammunition, condor protection, and all rules and regulations regarding hunting on the ranch, as described in Section 4.4.3.3. This can also include random sampling of gut piles or carcasses with a radiograph to determine if lead fragments are present.

4.5.1.1.6 General Compliance Monitoring

(14) TRC will investigate any complaint received from any employee, lessee, or third party concerning any allegation of violation of any requirement of this TU MSHCP or the ITP and will immediately notify USFWS of such complaints. The investigation will occur as promptly as possible, but not later than 24 hours from the time of notification if the alleged violation is deemed by the USFWS-approved Tejon Staff Biologist to place at risk any California condor.

(15) At any time the monitoring required by this section determines that TRC or any lessee, included entity, or third party engaged in a Covered Activity on Covered Lands is not in compliance with any restriction or requirement pertaining to the activity contained in this TU MSHCP or the permit (or any other document, including a lease, that incorporates the restriction or requirement), TRC will promptly comply, or promptly take all reasonable actions to cause the lessee, included entity, or third party to immediately comply, with the restriction or requirement or to cease the Covered Activity giving rise to the noncompliance. This information will also be included in the annual monitoring report to

be supplied to USFWS. If initial contacts with and demands made of the lessee, included entity, or the third party by TRC are unsuccessful in causing a cessation of the violation, then reasonable actions will include filing suit for injunction or other appropriate relief under this TU MSHCP and ITP and the applicable document, lease, or certificate of inclusion, and contacting USFWS to discuss other possible actions to obtain compliance.

(16) TRC will notify USFWS in writing of any problem identified by the USFWS-approved Tejon Staff Biologist relating to the activities covered by this TU MSHCP and ITP and the California condor during the monitoring required by this section or otherwise and provide any recommendations TRC deems appropriate to resolve the problem. If TRC and USFWS concur, then TRC will take immediate action to abate the problem in accordance with the terms and conditions of the TU MSHCP and ITP.

(17) With respect to the mitigation measures to be included in CC&Rs, leases, or certificates of inclusion as defined in the ITP, TRC will take the following measures to ensure: (i) compliance with the mitigation measures required to be included in CC&Rs and lease terms as described in Section 4.4.1 (e.g., information regarding disturbances and microtrash, development on/near ridges used by condors, installation of new antennas); and (ii) control of actions of, or conditions associated with, residents, businesses, or guests that USFWS or the USFWS-approved Tejon Staff Biologist determines to be in violation of the TU MSHCP:

(a) If the offending party is a resident subject to the CC&Rs:

(i) Upon the determination by the USFWS-approved Tejon Staff Biologist (or a TRC employee in a managerial position) that a violation, action, or condition has occurred or exists that is contrary to the condor CC&R requirements, he or she will make initial contact with the offending party, informing such party of the violation, action, or condition; directing that the violation, action, or condition cease or be abated; and providing notice of the sanctions that will follow if the violation, action, or condition is not promptly ceased or abated.

(ii) The USFWS-approved Tejon Staff Biologist or other TRC/homeowners association (HOA) employee will attempt to make the initial contact in person and orally.

(iii) If a California condor has been present on the offending party's property or leasehold during the occurrence of the violation, action, or condition, to the extent the USFWS-approved Tejon Staff Biologist or TRC/HOA employee possesses the requisite authority, he or she will order immediate

cessation or abatement or take such action himself or herself to remove the risk posed to the bird by the violation, action, or condition.

(iv) Any oral contact will be followed with a letter to the offending party addressing the violation, action, or condition; the cessation or abatement requirement; and the sanctions that will be applied absent cessation or abatement. If no oral contact could be made, the written notice will be sent immediately after the attempted personal visit.

(v) If the violation, action, or condition is not ceased or abated in accordance with the letter in step (iv), the offending party will be sent a formal written notice repeating the information in step (iv) and, if possible, receive a second visit from the USFWS-approved Tejon Staff Biologist or TRC/HOA employee.

(vi) If the violation, action, or condition is not ceased or abated in a timely manner in accordance with the written notice in step (v), following any due process requirements under the CC&Rs or lease terms, the offending party will be served a written demand by TRC order to cease or desist the violation, action, or condition and will be fined $1,000 (if a resident) plus any costs and expenses incurred as a result of the violation, action, or condition, including the time and expense of the USFWS-approved Tejon Staff Biologist and other TRC/HOA employees in undertaking these steps, attorney's fees and costs of bringing a formal complaint under the CC&Rs, and any actual damages to the California condor.

(vii) If the violation, action, or condition is not ceased or abated in a timely manner in accordance with the written demand provided in step (vi), TRC/HOA will initiate proceedings under the CC&Rs to enforce the order, including the filing of a motion in court for an injunction to force compliance. Such third parties would be liable for any take under FESA that their actions cause, and such incidental take may be applied to the incidental take authorized under the ITP.

(b) If the offending party is the holder of a lease or of a certificate of inclusion, as defined in the ITP:

(i) Steps (i) through (v) in subparagraph (a) will be taken.

(ii) Following the final written notice in step (v) of subparagraph (a), if cessation or abatement has not occurred in a timely manner, TRC/HOA will initiate a default proceeding under the lease, certificate of inclusion,

or other possessor document to cause such violation, action, or condition to cease or be abated. Depending on the severity of the violation, action, or condition and the degree of resistance to the notice provided pursuant to step (v) of subparagraph (a), the default proceeding may be a major default proceeding under the lease, certificate of inclusion, or other possessor document to effect eviction or comparable forfeiture proceeding, or motion for injunction, subject to the rights of lenders to the offending party. Such third parties would be liable for any take under FESA that their actions cause, and such incidental take may be applied to the incidental take authorized under the ITP.

(c) If the offending party is a guest of a resident subject to such CC&Rs, or the guest of a holder of a lease or certificate of inclusion, as defined in the ITP, for Covered Activities; or is a licensee or guest of TRC, he or she will be ordered to leave by the USFWS-approved Tejon Staff Biologist or TRC/HOA employee, and any or all of the steps in (a), above, may be omitted and are not required before the order is given. Such third parties would be liable for any take under FESA that their actions cause, and such incidental take may be applied to the incidental take authorized under the ITP.

4.5.1.2 EFFECTIVENESS MONITORING

The biological goals and objectives of this TU MSHCP are stated at the beginning of this section. The following measures address the monitoring necessary to determine if those goals are being achieved and if the species is responding to the overall conservation strategy described in this TU MSHCP.

(1) Declining or non-existent lead levels over time within hunter-killed game animals on the ranch as determined by periodic field testing by the USFWS-approved Tejon Staff Biologist of hunter-killed carcasses and gut piles with a portable radiograph to determine the presence of lead residues.

(2) Declining or non-existent instances of lead ammunition being brought onto the ranch by licensed hunters as enforced and monitored by TRC game managers through random inspections of all hunting permittees on the ranch at any given time to ensure that all hunters have valid hunting permits that include acknowledging and signing notices and agreements regarding the ban on lead ammunition.

(3) Declining or non-existent percentages of lead over time found in condors that regularly visit and feed on Tejon Ranch as measured by USFWS personnel during periodic physical and medical inspections of free-flying condors.

(4) Increased use by condors of the Condor Study Area and other preserved foraging habitat areas on the ranch over time as determined by regular review of USFWS GPS data; if a decrease in use is noted, it should be determined if any reduction in use by condors can be attributed to a change in habitat conditions that is not consistent with the goals of the TU MSHCP.

(5) Reduction over time for the need to deter condors from habituating to human activities and structures on the ranch as determined by USFWS and/or the USFWS-approved Tejon Staff Biologist and as identified in annual monitoring reports prepared by the USFWS-approved Tejon Staff Biologist.

(6) Declining instances of condors on Tejon Ranch ingesting microtrash by monitoring condor movements when they are on the ranch to determine if they are exposed to microtrash generated on the ranch.

(7) No increase of condor collisions with artificial towers or structures on Tejon Ranch (none have occurred) as determined by USFWS and/or the USFWS-approved Tejon Staff Biologist and as documented in annual monitoring reports prepared by the USFWS-approved Tejon Staff Biologist.

4.5.2 REPORTING REQUIREMENTS

TRC will submit to USFWS an annual monitoring and compliance report that specifies the following with respect to Covered Activities:

(1) General Activities:

(a) Summaries of the various monitoring activities required by Section 4.5.1 and Section 4.5.2 during the reporting period.

(b) A detailed description of any construction of back-country cabins undertaken by TRC or any lessee or certificate-of-inclusion holder during the reporting period within the Covered Lands, including map location, blueprint or other layout, and photographs, as well as a description of any construction of cabins that may be planned for the next reporting period.

(c) A general description or map/statistical table of any construction undertaken by TRC or any lessee or certificate-of-inclusion holder during the reporting period, or that may be planned during the next reporting period, in the Covered Lands, containing descriptions of the purpose of the construction activity, mapped location of its final or planned boundaries, the actual or projected timing of the construction, and the actual or projected acreage of the activity.

(d) A general description or map/statistical table of any construction activities undertaken during the reporting period or planned during the next reporting period in the Covered Lands, by persons who are not lessees or certificate-of-inclusion holders and are not affiliates or under the direct control of TRC, to the extent such activities are known to TRC.

(e) A table reporting the acreage totals and locations of construction during the reporting period.

(f) A description, including date, time, and circumstance, of any encounters with California condors known to have occurred during construction or during any other uses or activities on the Covered Lands in the reporting period and any known effects on such birds.

(g) Copies or descriptions of any materials, signage, or other methods employed pursuant to this TU MSHCP during the reporting period to instruct users of the Condor Study Area concerning the requirements for use of the Condor Study Area set forth in Section 4.4.3.1 and others living on, using, recreating in, or visiting the Covered Lands concerning applicable requirements of this TU MSHCP and the ITP.

(h) A copy of the employee disclosure sheet required by Section 4.4.3.6 and distributed to TRC employees in the reporting period.

(i) A summary of any California condor sightings on the Covered Lands reported by TRC employees and other ranch users, including developers, lessees, and included entities during the reporting period, with the date, time, and location of the sightings, as well as any discernable behaviors (flying, perching, eating, roosting) when observed; and copies of reports by the project biologist assigned to construction crews or filming crews regarding any California condors encountered during those activities and the results of monitoring for microtrash ingestion during those periods.

(j) A summary of the filming activities described in Section 4.2.1.1 that occurred during the reporting period, including but not limited to location, duration, and scope.

(k) A general description of any new or amended leases executed by TRC during the reporting period for Covered Activities involving minerals, including the minerals to which the leases apply and the locations of the leaseholds.

(l) Although hunting is not a covered activity, a summary of the written information and orientations for hunters and other educational efforts offered by TRC in

conjunction with its perpetual ranchwide ban on the use of lead ammunition, as described in Section 4.4.3.3.

(m) If TRC establishes a California Condor Information Center, a general description of the activities of and visits to the center during the reporting period.

(n) A brief description of any California condor deterrence activities if such activities are conducted by the USFWS-approved Tejon Staff Biologist under applicable Federal and state law, including the dates, locations, times, circumstances, and actions during the reporting period.

(o) An accounting of any California condors found dead, killed, or injured on the ranch during the reporting period, including a description of the date, time, location, and circumstances of the incident, as well as any other pertinent information. Any condors found dead, killed, or injured on the ranch will be reported to USFWS (Ventura Fish and Wildlife Office and California Condor Recovery Program) immediately by telephone and in writing.

(p) A description of any minor or major TU MSHCP and/or ITP amendments, as per Section 8.4, requested and/or approved during the reporting period.

(q) A description of any modifications to the TU MSHCP made in accordance with the adaptive management strategy set forth in Section 4.6.

(r) A table of any adaptive management changes to the TU MSHCP during the reporting period, including a very brief summary of the actions.

(s) A description of any events during the reporting period that fall under the Changed and Unforeseen Circumstances as described in Section 8 and how these circumstances were addressed (50 CFR 17.22(b)(2)(C)).

(t) A description of any additional measures undertaken pursuant to Section 4.4.2 in the event of occurrence of an incidental take.

(u) Notice that copies of the minutes of any meetings between the USFWS-approved Tejon Staff Biologist and the California Condor Recovery Team during the reporting period have been prepared by TRC and are available for inspection by USFWS at the ranch.

(v) Any adjustments made by TRC in the security required.

(2) Compliance Reporting:

(a) Disclosure of any instances of noncompliance with the provisions of this TU MSHCP and the ITP during the reporting period, including violations of restrictions incorporated in leases pursuant to Section 2.2.4 and of the ban on lead ammunition described in Section 4.4.3.3, as disclosed by the monitoring required in Section 4.5.1.1.5 or otherwise.

(b) A report of all actions, including the enforcement measures taken by TRC, or any lessee, included entity, or third party, during the reporting period to rectify the instances of noncompliance disclosed and achieve compliance with the applicable provisions of this TU MSHCP or the ITP (and restrictions in leases incorporating those provisions), and the effects of such actions.

(c) A description of any problems relating to activities covered in this TU MSHCP and the ITP or the California condor previously provided by notice to USFWS, and the results of any recommendations by TRC or USFWS to address or resolve the problems made.

4.6 ADAPTIVE MANAGEMENT

Habitat conservation plans are required to contain adaptive management provisions when there are substantial gaps in the knowledge of the Covered Species that may pose significant risk after the issuance of an ITP. These uncertainties may include lack of ecological data (e.g. food sources, foraging habits, territory size, etc.), uncertainty about habitat or species management, uncertainty regarding the effectiveness of certain conservation strategies or measures, or uncertainty about the extent of potential effects posed by the Covered Activities. Because the entire California condor population was brought into captivity by USFWS to establish a captive breeding program, the condors that have been and are being released from the program represent a unique population that likely behave differently than the wild-bred birds prior to the breeding program being established. In addition, aggressive supplemental feeding programs have been established to ensure that the released condors have access to a stable source of lead-free food. Consequently, how condors that utilize Tejon Ranch will adapt to some of the conservation and mitigation strategies proposed in this TU MSHCP is not entirely known. Therefore, the following measures and processes would be employed, should an adaptive management approach be necessary.

(1) If, as a result of ongoing monitoring by the USFWS-approved Tejon Staff Biologist and USFWS, it is determined that condors are regularly ingesting microtrash on the Covered Lands, if they are observed engaging in habituation behaviors in areas within the Covered Lands where ingestion of microtrash is likely to occur, or if they are observed colliding with or landing on artificial

structures on the Covered Lands, an evaluation shall be conducted by TRC and USFWS as to potential remedies to resolve the issue(s) to reduce the instances of microtrash ingestion, collisions, and/or habituation. Potential remedies can include increased education and awareness to Tejon residents, guests, staff, and workers regarding the dangers of microtrash; increased monitoring of events and activities that are potential sources of microtrash, including for example, more frequent collection of microtrash; and revision of guidelines regarding location of antennae and/or towers. Following consultation with TRC, USFWS shall identify the additional measures necessary to address microtrash ingestion, and TRC shall implement those measures. TRC will take such actions if USFWS pre-approves them, without awaiting a notice from USFWS, and will report to USFWS on any actions taken. Otherwise, TRC will take such actions following consultation with USFWS.

(2) If, as a result of ongoing monitoring by the USFWS-approved Tejon Staff Biologist and USFWS, it is determined that California condors are using areas of the Covered Lands on which development has occurred or is occurring, USFWS shall be alerted to the locations and areas in which condors are occurring and USFWS shall consider implementing various actions to deter condors from occurring within developed areas. Consideration should be given to ensuring that carcass dumps and gut piles from hunter-killed game animals are being deposited at locations appropriately distant from existing development.

Given the significant set-aside of land for the California condor within Covered Lands, including the TU MSHCP Mitigation Lands (see *Figure 1-3*), including the Condor Study Area, as well as preservation called for under the recently approved Ranchwide Agreement, and given the additional measures to be implemented by TRC to aid in the conservation and recovery of the species, the adaptive management program incorporated into this TU MSHCP does not extend to changes that would result in further restrictions on the amount or location of development within the development areas set forth in *Table 2-1, Generalized TU MSCHP Land Use Summary*, or the ability to continue grazing in accordance with grazing levels comparable to past grazing practices (14,500 head of cattle). Nothing in this paragraph is intended or shall be construed to restrict the continuing duty of USFWS to ensure that implementation of the TU MSHCP does not exceed permitted incidental take limits, and the TU MSHCP and ITP are not likely to jeopardize the continued existence of the California condor.

4.7 MEET-AND-CONFER OBLIGATION AND OBJECTIVES

If the ITP is terminated or notice of prospective termination has been provided by means other than the voluntary withdrawal of TRC under Section 4.4.3.1, or in the event any FESA incidental take of California condor under Section 4.2.4 occurs or the limits of authorized incidental take of

any other Covered Species are met, then TRC and USFWS will meet and confer as described in this section to address the permit termination and/or incidental take.

(1) If the ITP has been terminated, or notice of prospective termination has been provided, the objectives of the meetings will be to:

(i) Obtain the cessation and cure of any defaults or failures to perform under this TU MSHCP that led to the termination or termination notice and to provide reasonable assurances of the prevention of further defaults or failures to perform;

(ii) Provide the continued avoidance, minimization, mitigation, and conservation and recovery contributions to, and protections for, the California condor and other Covered Species set forth in this TU MSHCP, or other measures which will secure equivalent or more beneficial effects; and

(iii) Determine next steps consistent with the informal dispute resolution process in the Implementing Agreement, if necessary.

(2) If FESA incidental take of California condor has occurred, then the objectives of the meetings will be to:

(i) Review the circumstances involved in the incidental take;

(ii) Discuss and reach agreement on any methods, within the provisions of this TU MSHCP or mutually agreeable alternative or additional methods, that might be undertaken by either or both TRC or USFWS to minimize even further the likelihood of any additional incidental take authorized by the ITP;

(iii) Agree upon ways in which the benefits to the species under this TU MSHCP might be enhanced; and

(iv) Determine next steps consistent with the informal dispute resolution process in the Implementing Agreement, if necessary.

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